Supreme Court, U.S.
FILED
OCT 1 - 2019
OFFICE OF THE CLERK

No. 19-454

In The Supreme Court of the United States

ARIZONA CATTLE GROWERS' ASSOCIATION,

Petitioner,

vs.

SALAZAR, *et al.*,

Respondents.

On Petition For Writ Of Certiorari To The United States Court Of Appeals For The Ninth Circuit

PETITION FOR WRIT OF CERTIORARI

NORMAN D. JAMES
Counsel of Record
FENNEMORE CRAIG, P.C.
3003 North Central Avenue
Suite 2600
Phoenix, AZ 85012-2913
(602) 916-5346
njames@fclaw.com

THOMAS J. WARD
NATIONAL ASSOCIATION OF HOME BUILDERS
1201 15th Street, NW
Washington, D.C. 20005-2800
(202) 266-8200

Counsel for Petitioner Arizona Cattle Growers' Association

COCKLE LAW BRIEF PRINTING CO (800) 225-6964
OR CALL COLLECT (402) 342-2831

QUESTIONS PRESENTED

Under § 4 of the Endangered Species Act ("ESA"), 16 U.S.C. § 1533, the Fish and Wildlife Service ("FWS") designated more than 8.6 million acres of federal land in four states as "critical habitat" for the Mexican spotted owl. Despite stating in its rulemaking that that there are only 1,176 to 2,352 known owls, FWS concluded that all of this land is occupied by owls. To analyze the economic impacts of designating critical habitat, FWS used the "baseline" approach, under which it ignored impacts to land and resource users related to the species' listing. The agency concluded that there would be no impacts from designating critical habitat other than a small amount of administrative costs. The Ninth Circuit Court of Appeals upheld the agency's action, including its use of the baseline approach, even though that methodology has been rejected by another circuit as contrary to the ESA. The questions presented are:

1. Was FWS required to analyze and consider all of the economic impacts that result from designating particular areas as critical habitat under ESA § 4(b)(2), including impacts that also may be related to the species' listing?

2. Was it lawful for the Ninth Circuit to substitute its own rationale for the rationale provided by FWS in order to affirm the agency's determination that all 8.6 million acres of critical habitat are occupied by owls?

PARTIES TO THE PROCEEDING

The petitioner is the Arizona Cattle Growers' Association. The respondents are Ken Salazar, the Secretary of Interior; the Department of the Interior; Rowan W. Gould, Acting Director of the Fish and Wildlife Service;[1] the Fish and Wildlife Service; and the Center for Biological Diversity, which intervened in proceedings below to support the government's action.

The New Mexico Cattle Growers Association submitted a brief to the Ninth Circuit Court of Appeals as *amicus curiae* in support of petitioner addressing the lawfulness of FWS's analysis of the economic impacts of designating critical habitat.

CORPORATE DISCLOSURE STATEMENT

The Arizona Cattle Growers' Association is a non-profit Arizona corporation whose members consist of cattle ranchers and associated businesses in Arizona. It has no parent corporation or subsidiaries, and has issued no shares of stock to the public.

---

[1] Mr. Gould is substituted for former Director H. Dale Hall pursuant to Supreme Court Rule 35.3.

TABLE OF CONTENTS

	Page
QUESTIONS PRESENTED	i
PARTIES TO THE PROCEEDING	ii
CORPORATE DISCLOSURE STATEMENT	ii
PETITION FOR WRIT OF CERTIORARI	1
CITATIONS OF REPORTS OF OPINIONS ENTERED IN THE CASE	1
BASIS FOR SUPREME COURT JURISDICTION	1
STATUTORY PROVISIONS INVOLVED IN THE CASE	2
STATEMENT OF THE CASE	2
I. OVERVIEW OF THE CASE	2
II. THE ADMINISTRATIVE PROCEEDINGS CONCERNING THE CRITICAL HABITAT DESIGNATION	4
A. Background on the Mexican Spotted Owl	4
B. Prior Attempts to Designate Critical Habitat	6
C. The 2004 Critical Habitat Rule	7
III. THE COURT PROCEEDINGS BELOW	11
A. The District Court's Decision	11
B. The Ninth Circuit's Opinion	12

TABLE OF CONTENTS – Continued

Page

REASONS FOR GRANTING THE PETITION..... 14

I. THIS CASE PRESENTS IMPORTANT LEGAL QUESTIONS CONCERNING THE ROLE OF CRITICAL HABITAT UNDER THE ENDANGERED SPECIES ACT..... 15

II. THE COURT SHOULD RESOLVE THE CONFLICT BETWEEN THE NINTH AND TENTH CIRCUIT COURTS OF APPEALS REGARDING THE REQUIREMENTS IMPOSED BY ESA § 4(b)(2)..... 19

A. Statutory and Regulatory Background ... 19

B. The "Baseline" Approach and the Tenth Circuit's Decision in *New Mexico Cattle Growers* 21

C. *Gifford Pinchot* and Subsequent Cases Rejecting *New Mexico Cattle Growers* 23

D. The Ninth Circuit's Opinion Should Be Reversed..... 25

III. THE COURT SHOULD REVIEW THE NINTH CIRCUIT'S UNLAWFUL SUBSTITUTION OF ITS OWN REASONING TO SUPPORT THE AGENCY'S CRITICAL HABITAT DESIGNATION..... 31

A. Statutory and Regulatory Background ... 31

TABLE OF CONTENTS – Continued

Page

B. The Court Should Review the Ninth Circuit's Determination that All 8.6 Million Acres of Critical Habitat Are Occupied by Owls 33

CONCLUSION 39

TABLE OF CONTENTS – Continued

Page

APPENDIX

OPINION SOUGHT TO BE REVIEWED

Ariz. Cattle Growers' Ass'n v. Salazar, 606 F.3d 1160 (9th Cir. 2010).....App. 1

DISTRICT COURT OPINION AND ORDER

Ariz. Cattle Growers' Ass'n v. Kempthorne, 534 F. Supp. 2d 1013 (D. Ariz. 2008).....App. 35

AGENCY RULE REVIEWED ON APPEAL

Final Designation of Critical Habitat for the Mexican Spotted Owl, 69 Fed. Reg. 53182 (Aug. 31, 2004).....App. 82

STATUTES

16 U.S.C. § 1532(5).....App. 339

16 U.S.C. § 1533(a)(1).....App. 340

16 U.S.C. § 1533(a)(3)(A).....App. 340

16 U.S.C. § 1533(b)(1)(A).....App. 341

16 U.S.C. § 1533(b)(2).....App. 341

REGULATIONS

50 C.F.R. § 424.02(a).....App. 342

50 C.F.R. § 424.02(d).....App. 342

TABLE OF CONTENTS -- Continued

Page

50 C.F.R. § 424.12 ..... App. 342

50 C.F.R. § 424.19 ..... App. 346

LEGISLATIVE HISTORY

H.R. Rep. No. 95-1625 (1978) ..... App. 347

S. Rep. No. 95-874 (1978) ..... App. 358

Congressional Record, Oct. 14, 1978 (House Consideration and Passage of H.R. 14104, With Amendments) ..... App. 362

H.R. Rep. No. 97-567 (1982) ..... App. 372

MISCELLANEOUS PORTIONS OF THE RECORD

U.S. Dep't of Interior, Fish and Wildlife Service, *Recovery Plan for the Mexican Spotted Owl (Strix occidentalis lucida)* (1995) ..... App. 380

U.S. Dep't of Interior, Fish and Wildlife Service, *Environmental Assessment for Designation of Critical Habitat for the Mexican Spotted Owl* (Aug. 18, 2004) ..... App. 415

TABLE OF AUTHORITIES

Page

CASES

Am. Textile Mfrs. Inst., Inc. v. Donovan, 452 U.S. 490 (1981) 34

Ariz. Cattle Growers' Ass'n v. Kempthorne, 534 F. Supp. 2d 1013 (D. Ariz. 2008) 1

Ariz. Cattle Growers' Ass'n v. Salazar, 606 F.3d 1160 (9th Cir. 2010) 1

Ariz. Cattle Growers' Ass'n v. U.S. Fish and Wildlife Serv., 273 F.3d 1229 (9th Cir. 2001) ... 18, 27

Bennett v. Spear, 520 U.S. 154 (1997) 4, 17, 33, 38

Burlington Truck Lines, Inc. v. United States, 371 U.S. 156 (1962) 34

Cape Hatteras Access Pres. All. v. Dep't of Interior, 344 F. Supp. 2d 108 (D.D.C. 2004) 24, 33, 35

Catron County Bd. of Comm'rs v. U.S. Fish and Wildlife Serv., 75 F.3d 1429 (10th Cir. 1996) 6, 23

Chevron U.S.A., Inc. v. NRDC, 467 U.S. 837 (1984) 12

Ctr. for Biological Diversity v. BLM, 422 F. Supp. 2d 1115 (N.D. Cal. 2006) 24

Ctr. for Biological Diversity v. Norton, 240 F. Supp. 2d 1090 (D. Ariz. 2003) 7

Defenders of Wildlife v. Flowers, 414 F.3d 1066 (9th Cir. 2005) 18, 27

Douglas County v. Babbitt, 48 F.3d 1495 (9th Cir. 1995) 7

TABLE OF AUTHORITIES – Continued

Page

FDA v. Brown & Williamson Tobacco Corp., 529 U.S. 120 (2000) 28

Fund for Animals v. Rice, 85 F.3d 535 (11th Cir. 1996) 9

Gifford Pinchot Task Force v. U.S. Fish and Wildlife Serv., 378 F.3d 1059 (9th Cir. 2004) ..... *passim*

Home Builders Ass'n of N. Cal. v. Norton, 293 F. Supp. 2d 1 (D.D.C. 2002) 23

Home Builders Ass'n of N. Cal. v. U.S. Fish and Wildlife Serv., 268 F. Supp. 2d 1197 (E.D. Cal. 2003) 23

Home Builders Ass'n of N. Cal. v. U.S. Fish and Wildlife Serv., ___ F.3d ___, 2010 U.S. App. LEXIS 16439 (9th Cir. Aug. 9, 2010) 25

Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29 (1983) 4, 34, 38

NRDC v. U.S. Dep't of the Interior, 113 F.3d 1121 (9th Cir. 1997) 29

Nat'l Ass'n of Home Builders v. Defenders of Wildlife, 551 U.S. 644 (2007) 16, 28

N.M. Cattle Growers Ass'n v. U.S. Fish and Wildlife Serv., 248 F.3d 1277 (10th Cir. 2001) ..... *passim*

Rapanos v. United States, 547 U.S. 715 (2006) 17

TABLE OF AUTHORITIES – Continued

Page

SEC v. Chenery Corp., 332 U.S. 194 (1947).....34

Tennessee Valley Authority v. Hill, 437 U.S. 153 (1978).....16

STATUTES

5 U.S.C. § 551 *et seq.* .....*passim*

16 U.S.C. § 1531 *et seq.* 2

16 U.S.C. § 1532(5)(A)(i).....30, 31

16 U.S.C. § 1532(5)(A)(ii) 11, 31

16 U.S.C. § 1533 .....18, 29

16 U.S.C. § 1533(a)(2).....26

16 U.S.C. § 1533(a)(3).....9, 29

16 U.S.C. § 1533(a)(3)(A).....16, 26, 28

16 U.S.C. § 1533(a)(3)(A)(i) 29

16 U.S.C. § 1533(b)(2).....*passim*

16 U.S.C. § 1533(b)(4).....9

16 U.S.C. § 1533(b)(5).....9

16 U.S.C. § 1533(b)(5)(A).....7

16 U.S.C. § 1533(b)(6)(C).....28

16 U.S.C. § 1533(f).....9

16 U.S.C. § 1536 .....*passim*

16 U.S.C. § 1536(a)(2).....*passim*

16 U.S.C. § 1536(h).....2

TABLE OF AUTHORITIES – Continued

Page

28 U.S.C. § 1254(1) 1

28 U.S.C. § 2101(c) 1

42 U.S.C. § 4321 *et seq.* 6

LEGISLATIVE HISTORY

H.R. Rep. No. 95-1625 (1978), *reprinted in* 1978 U.S.C.C.A.N. 9453 ..... 20, 32

H.R. Rep. No. 97-567 (1982), *reprinted in* 1982 U.S.C.C.A.N. 2807 20

S. Rep. No. 95-874 (1978) 32

REGULATIONS

50 C.F.R. § 17.11(h) 4

50 C.F.R. § 17.95(b) 3

50 C.F.R. § 402.02 ..... 17, 22

50 C.F.R. § 402.14 17

50 C.F.R. § 402.14(h) 17

50 C.F.R. part 424 20

50 C.F.R. § 424.12 29

50 C.F.R. § 424.12(a) 16

50 C.F.R. § 424.12(a)(1) 21

50 C.F.R. § 424.12(a)(1)(ii) 30

50 C.F.R. § 424.12(e) 11, 33, 35

50 C.F.R. § 424.17(b) 28, 29

TABLE OF AUTHORITIES – Continued

Page

50 C.F.R. § 424.17(b)(2) 28-29

50 C.F.R. § 424.19 .....3, 21

AGENCY RULEMAKING

Determination of Critical Habitat for the Mexican Spotted Owl, 60 Fed. Reg. 29914 (June 6, 1995).....6

Final Designation of Critical Habitat for the Mexican Spotted Owl, 66 Fed. Reg. 8530 (Feb. 1, 2001).....7

Final Designation of Critical Habitat for the Mexican Spotted Owl, 69 Fed. Reg. 53182 (Aug. 31, 2004) .....*passim*

Final Determination of Critical Habitat for the Southwestern Willow Flycatcher, 62 Fed. Reg. 39129 (July 22, 1997).....21, 22

Final Rule to List the Mexican Spotted Owl as Threatened Species, 58 Fed. Reg. 14248 (Mar. 16, 1993) 4, 5, 6

Interagency Cooperation Regulations; Final Rule, 43 Fed. Reg. 870, (Jan. 4, 1978).....32

Listing Endangered and Threatened and Designating Critical Habitat; Amended Procedures to Comply with the 1982 Amendments to the Endangered Species Act, 49 Fed. Reg. 38900 (Oct. 1, 1984).....20, 21

TABLE OF AUTHORITIES – Continued

Page

Revocation of Critical Habitat for the Mexican Spotted Owl, Loach Minnow, and Spikedace, 63 Fed. Reg. 14378 (Mar. 25, 1998) 6

COURT RULES

Supreme Court Rule 13.3 1

OTHER AUTHORITIES

Arizona Statistical Abstract 2003: Data Handbook (Pia Montoya ed.) (2003) 18

Endangered Species Act Amendments of 1978, Pub. L. No. 95-632, 92 Stat. 3751 (1978) 19, 31, 33

George Cameron Coggins, "A Premature Evaluation of American Endangered Species Law," *Endangered Species Act: Law, Policy, and Perspective* (Donald C. Baur *et al.* eds., 2002) 16

U.S. Dep't of Interior, Recovery Plan for the Mexican Spotted Owl (Strix occidentalis lucida) (1995) 5, 9, 10, 35

Webster's New Collegiate Dictionary (1979) 13

PETITION FOR WRIT OF CERTIORARI

The Arizona Cattle Growers' Association ("ACGA") hereby petitions for a writ of certiorari to review the judgment of the United States Court of Appeals for the Ninth Circuit in this case.

CITATIONS OF REPORTS OF OPINIONS ENTERED IN THE CASE

The opinion of the Ninth Circuit, reproduced in the appendix ("App.") at 1-34, is reported at 606 F.3d 1160. The opinion and order of the district court, App. 35-81, is reported at 534 F. Supp. 2d 1013.

BASIS FOR SUPREME COURT JURISDICTION

The Ninth Circuit entered its judgment on June 4, 2010. App. 1. On July 30, 2010, Justice Kennedy extended the time period within which to file a petition for a writ of certiorari to and including October 1, 2010. The present petition is timely filed under 28 U.S.C. § 2101(c) and under Rule 13.3 of this Court. The jurisdiction of this Court is invoked under 28 U.S.C. § 1254(1).

The ACGA is a trade association whose members consist of ranchers and various associate members in the ranching industry. The ACGA has members in the ranching business throughout Arizona, many of whom hold grazing permits authorizing livestock

grazing on federal lands designated as critical habitat for the Mexican spotted owl.

STATUTORY PROVISIONS INVOLVED IN THE CASE

The case involves various provisions of the Endangered Species Act and its implementing regulations, which are reproduced at App. 339-346.

STATEMENT OF THE CASE

I. OVERVIEW OF THE CASE

This case concerns the requirements for designating land as critical habitat under the Endangered Species Act ("ESA"), 16 U.S.C. § 1531 *et seq*. Once designated, critical habitat restricts land uses through the application of ESA § 7(a)(2), 16 U.S.C. § 1536(a)(2). Federal actions that would destroy or adversely modify a listed species' critical habitat are prohibited, unless a special exemption is granted under 16 U.S.C. § 1536(h). To balance the interests of land and resource users with the interests of wildlife protection, Congress has required the Fish and Wildlife Service ("FWS") to consider the economic costs and other impacts produced by the designation of critical habitat, and has authorized FWS to exclude areas from critical habitat based on those impacts as long as exclusion will not result in the species'

extinction. 16 U.S.C. § 1533(b)(2); *see also* 50 C.F.R. § 424.19.

In this case, FWS designated more than 8.6 million acres of federal land in four states as critical habitat for the Mexican spotted owl. *Final Designation of Critical Habitat for the Mexican Spotted Owl*, 69 Fed. Reg. 53182 (Aug. 31, 2004) ("2004 Critical Habitat Rule") (codified at 50 C.F.R. § 17.95(b)) (App. 82-338). As a result, activities occurring on this land are now subject to the requirements imposed by ESA § 7(a)(2). FWS, however, determined that no economic costs would be imposed on land or resource users. App. 307-311.

FWS obtained this anomalous result by using the "baseline" approach, under which the agency considers only the incremental economic costs above the existing regulatory baseline. The regulatory baseline includes all costs that are related to the species' listing as endangered or threatened. Consequently, few, if any, economic impacts are attributed to the designation of critical habitat under the baseline approach, even when millions of acres of land are designated, as this case illustrates. This means that there are no regulatory benefits from excluding areas from critical habitat, making the analysis mandated by § 4(b)(2) meaningless. For these reasons, the Tenth Circuit rejected the baseline approach as contrary to the ESA. *N.M. Cattle Growers Ass'n v. U.S. Fish and Wildlife Serv.*, 248 F.3d 1277, 1285 (10th Cir. 2001). The Ninth Circuit rejected the Tenth Circuit's holding and approved the

baseline approach, creating a direct conflict between these circuits.

The Ninth Circuit also upheld FWS's determination that all 8.6 million acres of critical habitat are occupied by owls by improperly substituting its own rationale for that of the agency and speculating that large numbers of undiscovered owls exist, requiring millions of acres of critical habitat. *See, e.g., Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 50 (1983) ("[A]n agency's action must be upheld, if at all, on the basis articulated by the agency itself."). In so doing, the court violated the requirement that critical habitat be designated based on the best scientific data available, and not on speculation or surmise – an additional requirement imposed by Congress to protect the interests of land and resource users. *See Bennett v. Spear*, 520 U.S. 154, 176-77 (1997).

II. THE ADMINISTRATIVE PROCEEDINGS CONCERNING THE CRITICAL HABITAT DESIGNATION

A. Background on the Mexican Spotted Owl

The Mexican spotted owl was listed as a threatened species under the ESA in 1993. *Final Rule to List the Mexican Spotted Owl as Threatened Species*, 58 Fed. Reg. 14248 (Mar. 16, 1993) ("Listing Rule") (codified at 50 C.F.R. § 17.11(h)). The owl's range extends from the southern Rocky Mountains in

Colorado and the Colorado Plateau in southern Utah through Arizona, New Mexico and west Texas to the southern end of the Mexican Plateau in central Mexico. Listing Rule, 58 Fed. Reg. at 14248-49. Within this geographic area, the owl occupies "disjunct localities that correspond to isolated mountain systems and canyons." App. 89; *see also* App. 383-385, 419. The primary basis for listing the owl was the modification of suitable habitat resulting from timber harvesting on National Forests in Arizona and New Mexico and the threat of catastrophic wildfires. Listing Rule, 58 Fed. Reg. at 14266-70.

Since its listing, the Mexican spotted owl population in the United States has hovered around 2,000 birds. In the Listing Rule, FWS estimated that the owl population in the United States totaled 2,160 birds in 1990. *Id.* at 14249. In its 1995 recovery plan, FWS stated that although it lacked data on the owl's population, the species appeared to be stable and well distributed throughout its historic range. *See U.S. Dep't of Interior, Recovery Plan for the Mexican Spotted Owl (Strix occidentalis lucida)* 11-12 (1995) ("Recovery Plan"); App. 383-385.[2] In its 2004 Critical Habitat Rule, FWS stated that the owl's population size and distribution are similar to the species' historic population. App. 93. The agency also stated that the total number of known owls on federal

[2] The Recovery Plan is available at http://www.fws.gov/southwest/es/arizona/MSO.htm (visited September 24, 2010). Excerpts are reproduced in the appendix.

land in the southwestern United States ranges from 1,176 to 2,352 birds. App. 94.

B. Prior Attempts to Designate Critical Habitat

When it listed the owl in 1993, FWS failed to designate critical habitat, stating that critical habitat was not determinable because "maps in sufficient detail to accurately delineate areas on the ground are not presently available." Listing Rule, 58 Fed. Reg. at 14270. Two years later, FWS published a rule designating over 4.6 million acres of land in Arizona, Colorado, New Mexico, and Utah as critical habitat. *Determination of Critical Habitat for the Mexican Spotted Owl*, 60 Fed. Reg. 29914 (June 6, 1995). At that time, FWS estimated that the United States contained about 7.3 million acres of suitable owl habitat, but acknowledged that this estimate was likely overstated. *Id.* at 29917. The 1995 designation was challenged on the ground that FWS failed to comply with the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 *et seq.*, and was revoked. *Revocation of Critical Habitat for the Mexican Spotted Owl, Loach Minnow, and Spikedace*, 63 Fed. Reg. 14378 (Mar. 25, 1998).[3]

---

[3] The circuit courts also are split on whether FWS must comply with NEPA in designating critical habitat. The Tenth Circuit has held that NEPA applies to the designation of critical habitat. *Catron County Bd. of Comm'rs v. U.S. Fish and Wildlife Serv.*, 75 F.3d 1429 (10th Cir. 1996). The Ninth Circuit, in

(Continued on following page)

FWS issued a new critical habitat rule in February 2001, designating 4.6 million acres of land in Arizona, Colorado, New Mexico, and Utah. *Final Designation of Critical Habitat for the Mexican Spotted Owl*, 66 Fed. Reg. 8530 (Feb. 1, 2001). Environmentalists challenged the new designation, asserting that the exclusion of a substantial portion of the National Forest land initially proposed as critical habitat was arbitrary and capricious. The district court agreed, vacated the 2001 rule, and ordered FWS to publish a new critical habitat designation. *Ctr. for Biological Diversity v. Norton*, 240 F. Supp. 2d 1090, 1109 (D. Ariz. 2003).

C. The 2004 Critical Habitat Rule

In response to the district court's order, and instead of publishing a new proposed rule for public review and comment (*see* 16 U.S.C. § 1533(b)(5)(A)), FWS issued a notice announcing that it had reopened the comment period on the agency's 2000 proposed rule and, ultimately, issued a new critical habitat designation in 2004. App. 97-98. This time, FWS designated as critical habitat more than 8.6 million acres of federal land in Arizona, Colorado, New Mexico, and Utah. App. 238. In Arizona alone, nearly 4 million acres of land were designated, including more than 3.2 million acres of National Forest land.

---

contrast, has held that NEPA does not apply. *Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995).

The starting point for FWS's designation was the protected activity centers or "PACs," which are established around each known owl nest on federal land. Each PAC contains a minimum of 600 acres and includes the best owl nesting and roosting habitat in the area. App. 88. A total of 1,176 Mexican spotted owl PACs has been identified on federal land. App. 93-94. FWS noted the existence of some non-territorial birds (called "floaters") as well as dispersing juvenile owls. App. 218-219. But the agency did not provide any estimate of the number of owls outside PACs or state that large numbers of non-territorial owls likely exist. Instead, the agency explained that Mexican spotted owls are not migratory and exhibit high site fidelity. App. 222, 223, 226.

While the PACs include known nest and roost sites and the bulk of the associated foraging territory, they make up only a small percentage of the total land designated as critical habitat. For example, FWS stated in its environmental assessment that the National Forests of Arizona and New Mexico contain 987 PACs that cover 643,396 acres (about 651 acres per PAC) and an additional 5.4 million acres of "suitable" owl habitat. App. 425. Nearly 5.3 million acres of this land were designated as critical habitat – almost 60 percent of the total designation. App. 238. Thus, most of the land designated as critical habitat in Arizona and New Mexico National Forests is "suitable" habitat outside an owl PAC.

The reason for the large discrepancy between the area within the PACs and the total area designated as critical habitat is that FWS also relied on guidelines provided in the Recovery Plan to identify potential owl habitat, which was then designated as critical habitat. App. 87-88, 100, 233-234, 333-334.[4] The Recovery Plan generally describes three types of land, protected areas, restricted areas, and other forest and woodland types, and recommends varying levels of protection for each type. App. 88-89, 395-414. Protected areas include owl PACs, areas containing slopes greater than 40 percent in mixed-conifer and pine-oak forests that have not been logged within the past 20 years, and certain administratively reserved lands such as federal wilderness areas. App. 88, 100, 396-397, 402, 404-406. FWS explained that protected areas are "areas where owls are known to occur or are likely to occur." App. 100. In contrast, restricted areas do not qualify as protected areas, but instead contain "mixed-conifer forest, pine-oak forest, and riparian areas where *potential* nesting and roosting habitat exist." App. 88

[4] Recovery plans are guidance documents that impose no obligations on any agency, entity, or person to implement the various tasks listed in the plan. *See Fund for Animals v. Rice*, 85 F.3d 535, 547-48 (11th Cir. 1996). FWS is not required to follow the same rulemaking procedures and make the same findings required for designating critical habitat. *Compare* 16 U.S.C. § 1533(f) *with* 16 U.S.C. § 1533(a)(3), (b)(2), (b)(4) & (b)(5). In contrast to critical habitat, recovery plans do not specifically identify habitat areas, but instead describe recommended management actions.

(emphasis added); *see also* App. 406-407 (discussion of "restricted areas" in the Recovery Plan).

In determining whether all 8.6 million acres are occupied by owls, however, FWS did not distinguish between PACs with recent occupancy records, other protected areas, and restricted areas with potential owl habitat. The agency instead stated that all of these areas are occupied because they are "within the geographic area occupied by the species" and "devised around known owl nest sites." App. 121, 135, 233. FWS also stated that it "consider[ed] protected areas to be occupied on a more permanent basis and restricted areas to be temporally occupied." App. 121. FWS did not explain what "temporally occupied" means, nor did the agency provide a definition of "occupied" habitat.

In analyzing economic and other impacts under § 4(b)(2), FWS used the baseline approach, explaining that "[t]he economic effects already in place due to the listing of the owl as threatened is the baseline upon which we analyzed the economic effects of the designation of critical habitat." App. 308. FWS concluded that the only "[i]mpacts associated *solely* with this rulemaking" would be some additional administrative costs, which were estimated to be about 25 percent of $72,000 to $238,000 annually. App. 309 (emphasis added), 310-311. According to FWS, livestock grazing, timber harvesting, mining, oil and gas development, and other private land and resource uses occurring within critical habitat would not be affected by the designation.

III. THE COURT PROCEEDINGS BELOW

A. The District Court's Decision

The ACGA filed suit in the District of Arizona, alleging that FWS violated the ESA and the Administrative Procedure Act ("APA"), 5 U.S.C. § 551 *et seq.*, in issuing the 2004 Critical Habitat Rule. Among other things, the ACGA alleged that FWS had designated unoccupied areas as critical habitat without making the specific findings required by 16 U.S.C. § 1532(5)(A)(ii) and 50 C.F.R. § 424.12(e). The ACGA further alleged that FWS violated 16 U.S.C. § 1533(b)(2) by failing to analyze all of the economic impacts of the critical habitat designation and concluding that the designation would not impact any land and resource users.

The district court entered an order granting summary judgment against the ACGA on all claims. App. 81. The court upheld FWS's analysis of the economic impacts of designating the owl's critical habitat. App. 70-80. It narrowly interpreted ESA § 4(b)(2), and held that, as a matter of law, FWS is prohibited from considering impacts that may be related to the species' listing. App. 77-79. The court rejected the Tenth Circuit's holding in *New Mexico Cattle Growers*, concluding that the Ninth Circuit's decision in *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Serv.*, 378 F.3d 1059 (9th Cir. 2004), eliminated the basis for the Tenth Circuit's ruling. App. 75-76.

On the challenge to FWS's designation of unoccupied areas, the district court found the word "occupied" as used in the definition of critical habitat to be ambiguous, and applying *Chevron U.S.A., Inc. v. NRDC*, 467 U.S. 837 (1984), accepted FWS's interpretation as reasonable. App. 60-66. Unfortunately, the district court misapprehended the agency's rule, stating that FWS "interpreted 'occupied' to include those 'areas where owls are known to occur or are likely to occur,'" and then assuming that owls are likely to occur throughout all 8.6 million acres of critical habitat. App. 63-64 (citing 2004 Critical Habitat Rule, 69 Fed. Reg. at 53185). However, FWS actually stated that protected areas – which are only a small subset of the critical habitat – are "areas where owls are known to occur or are likely to occur." App. 100. Based on this error, the court found that the agency's occupancy determination was supported by the best available science. App. 64-66.

B. The Ninth Circuit's Opinion

The ACGA appealed from the district court's judgment. On appeal, the Ninth Circuit affirmed the district court, holding that FWS's analysis of economic impacts resulting from the critical designation was not arbitrary and capricious. App. 27-33. The court approved use of the baseline approach for evaluating economic impacts and rejected *New Mexico Cattle Growers*, concluding that the Tenth Circuit had relied on a "faulty premise" regarding the regulatory impact of critical habitat

and that the baseline approach is "more logical." App. 29-31. Like the district court, the Ninth Circuit relied on *Gifford Pinchot* to support its rejection of the Tenth Circuit's holding. App. 29-30.

The ACGA argued on appeal that the term "occupied" is not ambiguous and has no specialized or unique meaning. Instead, the plain meaning of "occupied" is to "reside in," *i.e.*, occupied areas must actually contain members of the species. *See, e.g.*, *Webster's New Collegiate Dictionary* 787 (1979). The Ninth Circuit held that "occupied" "does not provide a clear standard," and rejected the ACGA's argument on the basis that "reside in" is too narrow. App. 12-14. Because FWS provided no definition of "occupied" in the rule, the Ninth Circuit relied on FWS's Consultation Handbook, which defines "occupied critical habitat" for the purpose of § 7 consultation as "critical habitat *that contains individuals of the species at the time of the . . . project analysis*. A species does not have to occupy critical habitat throughout the year for the habitat to be considered occupied." App. 11 (emphasis added). Following that definition, the court held that "FWS has authority to designate as 'occupied' areas that the owl uses with sufficient regularity that it is likely to be present during any reasonable span of time." App. 12.

Based on its interpretation of "occupied," the Ninth Circuit held that FWS did not designate any unoccupied areas as critical habitat. App. 16-19. The court determined that owls utilize far more territory than the area within a PAC and that there are

actually a much larger number of owls, providing adequate support for FWS's occupancy determination. App. 16-25. The court gave no weight to FWS's estimate of the number of owls occupying federal land in the southwest, emphasizing that the PACs "reflect only *known* owl sites." App. 18, 25 (emphasis original). Rather the court found that "there is record support for the existence of substantially greater numbers of owls and undiscovered sites," as well as "areas used by nonterritorial owls, areas used for juvenile dispersal, or areas used for owl migration." App. 25.

REASONS FOR GRANTING THE PETITION

The Ninth Circuit's opinion effectively rewrites the ESA. It changes the method used to analyze the economic impacts of designating critical habitat in a way that renders the analysis meaningless, and blurs the distinction between "occupied" and "unoccupied" areas that appears on the face of the statute and in FWS's regulations.

If left undisturbed, the Ninth Circuit's opinion will have far-reaching consequences. It upsets the national uniformity in the administration of the ESA by creating a square conflict with the Tenth Circuit. This conflict is particularly problematic given that endangered species and their critical habitat may be found in multiple states and cross circuit court boundaries, as this case illustrates. Further, by marginalizing the role that economics plays in

designating critical habitat and allowing large expanses of land to be treated as "occupied" without credible scientific evidence that the species' members are actually present, the decision upsets the balance between land and resource users and wildlife protection intended by Congress.

The opinion also warrants review because it contravenes well-established administrative law principles and principles of statutory interpretation. Although critical habitat must be based on the best scientific information available, the Ninth Circuit engaged in result-driven decision-making by substituting its own reasoning for that of the agency, and then engaged in impermissible speculation about the number of Mexican spotted owls in the southwestern United States and how much land is truly critical to the species.

This Court should grant the petition and resolve the questions created by the Ninth Circuit's erroneous construction of the ESA and restore Congress's intent that economics play a central role in the designation of critical habitat and that land "occupied" by a species be construed narrowly and limit the scope of critical habitat.

I. THIS CASE PRESENTS IMPORTANT LEGAL QUESTIONS CONCERNING THE ROLE OF CRITICAL HABITAT UNDER THE ENDANGERED SPECIES ACT

Since its enactment in 1973, the ESA has evolved into one of the nation's most demanding environmental

laws. As one commentator stated, "The ESA is not the single most important federal environmental statute, but – whether one applauds or deplores this turn of events – the law is now a primary obstacle to land development and related activities in America." George Cameron Coggins, "A Premature Evaluation of American Endangered Species Law," *in Endangered Species Act: Law, Policy, and Perspective* 1 (Donald C. Baur *et al.* eds., 2002). Critical habitat is an important component of the ESA's regulatory scheme. This case concerns the role of critical habitat under the ESA and the balancing of interests intended by Congress when critical habitat is designated through the consideration of economic impacts and the use of the best scientific data available under § 4(b)(2).

FWS is required to designate critical habitat at the same time a species is listed as threatened or endangered "to the maximum extent prudent and determinable." 16 U.S.C. § 1533(a)(3)(A); 50 C.F.R. § 424.12(a). Following its designation, critical habitat restricts land and resource uses through the application of ESA § 7(a)(2), 16 U.S.C. § 1536(a)(2). *See Nat'l Ass'n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 651-52 (2007). For example, the presence of critical habitat for the snail darter was the basis for the injunction that prevented the Tellico Dam's completion in *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 161-62, 171 (1978). Moreover, if a proposed action may adversely affect a species' critical habitat, the agency must engage in

consultation with FWS to ensure that critical habitat is not adversely modified. *See* 50 C.F.R. § 402.14. This process may result in restrictions or other modifications to the proposed action to avoid adverse modification. *Id.* § 402.14(h); *see also Bennett*, 520 U.S. at 158, 169-70 (discussing the restrictions resulting from § 7 consultation).

The term "action" has been defined broadly as "all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies," and includes "the granting of licenses, contracts, leases, easements, rights-of-way, permits, [and] grants-in-aid." 50 C.F.R. § 402.02. Thus, almost any discretionary federal action potentially triggers the requirements imposed by § 7(a)(2). As various federal regulatory programs have expanded, an increasing number of private land uses require some sort of federal permit or have some other federal nexus that triggers the application of § 7(a)(2). *See, e.g.*, *Rapanos v. United States*, 547 U.S. 715, 724-29 (2006) (plurality opinion) (describing the expansion of jurisdiction asserted by the Corps of Engineers under the Clean Water Act).

In addition, private activities that take place on federal land such as livestock grazing, timber harvesting, mining, and oil and gas development necessarily involve some type of federal authorization and are affected by the designation of critical habitat. This is especially problematic in the western states (including states in the Ninth and Tenth Circuits), which contain millions of acres of federal land and

whose economies depend on the ability to access and use federal land.[5] Many of the ACGA's members, for example, depend on federal land for their ranching operations and hold grazing permits from the Forest Service or the Bureau of Land Management.

Finally, the requirements of § 7(a)(2) apply only to species' habitat that is formally designated as "critical" under ESA § 4. *See Ariz. Cattle Growers' Ass'n v. U.S. Fish and Wildlife Serv.*, 273 F.3d 1229, 1244 (9th Cir. 2001) ("[T]here is no evidence that Congress intended to allow [FWS] to regulate any parcel of land that is merely capable of supporting a protected species."). Federally authorized or funded activities taking place in areas that are not occupied by members of a listed species normally will not be subject to § 7(a)(2) *unless* critical habitat is present. *See, e.g., Defenders of Wildlife v. Flowers*, 414 F.3d 1066, 1069-70 (9th Cir. 2005) (the Corps of Engineers had no obligation to consult with FWS when no listed species occupied the project area and no critical habitat was present). Consequently, the designation of critical habitat expands the activities potentially subject to § 7(a)(2) by subjecting land uses with a federal nexus to the "adverse modification" standard regardless of whether members of the species are found in the project area.

---

[5] More than 60% of the land in Arizona – over 45 million acres – is in some form of federal ownership or control. *See Arizona Statistical Abstract 2003: Data Handbook* (Pia Montoya ed.) 198-99 (2003).

Because of the regulatory burdens imposed by critical habitat, when the ESA was amended in 1978 to create greater flexibility and reduce resource conflicts, Congress specifically addressed critical habitat. It enacted a definition of critical habitat that distinguishes between occupied and unoccupied areas, required that critical habitat designations be based on the best scientific data available, and required that economic impacts be considered. Unfortunately, in this case, the Ninth Circuit has undermined the role that economic considerations should play when critical habitat is designated, and based on its own speculation upheld the designation of millions of acres of land in four western states with no verified record of occupancy.

II. THE COURT SHOULD RESOLVE THE CONFLICT BETWEEN THE NINTH AND TENTH CIRCUIT COURTS OF APPEALS REGARDING THE REQUIREMENTS IMPOSED BY ESA § 4(b)(2)

A. Statutory and Regulatory Background

In 1978, Congress amended the ESA to authorize FWS to exclude areas from critical habitat based on economic considerations. Endangered Species Act Amendments of 1978, Pub. L. No. 95-632, § 12(7), 92 Stat. 3751, 3766 (1978) (current version at 16 U.S.C. § 1533(b)(2)) (App. 341-342). This statute requires FWS to evaluate and consider the economic costs associated with designating areas as critical habitat and, based on those costs, authorizes the

exclusion of areas that satisfy the definition of critical habitat, subject only to the limitation that an area's exclusion may not result in the species' extinction.

Congress explained that this provision was added to provide greater flexibility in designating critical habitat and to reduce conflicts between critical habitat and land use activities by requiring economics and other non-biological factors to be considered. *See* H.R. Rep. No. 95-1625, at 7-10, 16-17 (1978), *reprinted in* 1978 U.S.C.C.A.N. 9453, 9457-60, 9466-677 (App. 348-354). In amending the ESA in 1982, Congress again emphasized that economic impacts should play an important role in critical habitat designation, explaining that the consideration of economic impacts under § 4(b)(2) provides a "counter-point to the listing of species without due consideration for the effects on land use and other development interests." H.R. Rep. No. 97-567, at 12 (1982), *reprinted in* 1982 U.S.C.C.A.N. 2807, 2812 (App. 375-376).

In 1984, FWS adopted new rules governing the listing of species and the designation of critical habitat, which are codified at 50 C.F.R. part 424. *See Listing Endangered and Threatened and Designating Critical Habitat; Amended Procedures to Comply with the 1982 Amendments to the Endangered Species Act*, 49 Fed. Reg. 38900 (Oct. 1, 1984). These rules require FWS to "identify any significant activities that would either affect an area considered for designation of critical habitat or be likely to be affected by the designation," and to "consider the probable economic

and other impacts of the designation upon proposed or ongoing activities." 50 C.F.R. § 424.19. In its rulemaking preamble, FWS stated that this analysis should focus "primarily on the economic costs associated with designation, which was the intent of Congress in requiring such analyses," and not on the biological impacts of critical habitat, which "are more properly addressed in determining whether designation is prudent and will be of benefit to a species." 49 Fed. Reg. at 38907; *see also* 50 C.F.R. § 424.12(a)(1) (criteria for determining when the designation of critical habitat is not prudent).

B. The "Baseline" Approach and the Tenth Circuit's Decision in *New Mexico Cattle Growers*

In *New Mexico Cattle Growers*, the Tenth Circuit addressed the economic analysis mandated by ESA § 4(b)(2), concluding that all economic impacts of critical habitat must be considered, regardless of whether the impacts may be attributable to the species' listing. 248 F.3d at 1284-85. At issue was FWS's critical habitat designation for the southwestern willow flycatcher, which included 600 miles of rivers and streams in Arizona, California and New Mexico. *Final Determination of Critical Habitat for the Southwestern Willow Flycatcher*, 62 Fed. Reg. 39129, 39137, 39139-46 (July 22, 1997). As in this case, the designation included both areas with recent nest sites (areas with occupancy records) and areas with the potential to support nest sites in the future. *Id.* at 39133.

FWS concluded that no economic impacts would result from the designation, reasoning that critical habitat would not cause any "incremental" impacts on land and water uses beyond those already caused by the species' listing. In other words, the impacts attributable to the flycatcher's listing were regarded as "the baseline upon which critical habitat is imposed." *Id.* at 39137-38. The agency's reasoning was based on the similar definitions of "jeopardize the continued existence of" and "destruction or adverse modification" in the regulations governing § 7 consultation. *Id.* at 39131; *see* 50 C.F.R § 402.02 (definitions). Both definitions rely on "an appreciable detrimental effect on both survival and recovery of the species" to determine when a proposed action would violate § 7(a)(2). *Id.* FWS explained that due to this similarity, in the context of § 7 consultation "actions satisfying the standard for adverse modification are nearly always found to also jeopardize the species concerned." *Id.*

The Tenth Circuit squarely rejected this reasoning, holding that FWS's "baseline" approach renders the consideration of economic impacts required by Section 4(b)(2) "virtually meaningless" and is "not in accord with the language or intent of the ESA." *N.M. Cattle Growers*, 248 F.3d at 1285. The Tenth Circuit explained that "Congress intended that the FWS conduct a full analysis of all of the economic impacts of a critical habitat designation, regardless of whether those impacts are attributable co-extensively to other causes," including the species' listing. *Id.* For

support, the court relied on its decision in *Catron County*, which held that the designation of critical habitat causes impacts to the human environment, triggering the application of NEPA. *Id.* at 1284 (discussing *Catron County*, 75 F.3d at 1437).

C. *Gifford Pinchot* and Subsequent Cases Rejecting *New Mexico Cattle Growers*

After *New Mexico Cattle Growers* was issued, the courts and FWS began to discard the baseline approach as contrary to the ESA. *See, e.g., Home Builders Ass'n of N. Cal. v. U.S. Fish and Wildlife Serv.*, 268 F. Supp. 2d 1197, 1225-30 (E.D. Cal. 2003) (vacating the designation of 400,000 acres of land as critical habitat for the Alameda whipsnake); *Home Builders Ass'n of N. Cal. v. Norton*, 293 F. Supp. 2d 1 (D.D.C. 2002) (vacating the designation of 4.1 million acres of land as critical habitat for the red-legged frog). In these cases and others, FWS conceded that its analysis of economic impacts was inadequate based on *New Mexico Cattle Growers*.

In 2004, the Ninth Circuit issued its opinion in *Gifford Pinchot*, holding that FWS's rule defining "destruction or adverse modification" was too narrow because the definition "explicitly requires appreciable diminishment of the critical habitat necessary for survival" before the adverse modification standard would be triggered. 378 F.3d at 1069-71. As a result, the court invalidated several biological opinions concerning timber harvesting in National Forests on

the ground that FWS failed to consider whether adequate critical habitat would remain to ensure recovery of the northern spotted owl. *Id.* at 1071-72.

Although *Gifford Pinchot* involved a challenge to biological opinions issued under ESA § 7, and therefore did not address the requirements of § 4(b)(2) or the designation of critical habitat generally, several district courts subsequently have held that *Gifford Pinchot* undermined the Tenth Circuit's reasoning. Notably, the first court to do so was in the District of Columbia Circuit. *Cape Hatteras Access Pres. All. v. Dep't of Interior*, 344 F. Supp. 2d 108, 126-32 (D.D.C. 2004) (approving the baseline approach and rejecting *N.M. Cattle Growers*); *see also Ctr. for Biological Diversity v. BLM*, 422 F. Supp. 2d 1115, 1151-53 (N.D. Cal. 2006) (holding that FWS improperly considered co-extensive project modification costs in analyzing the impact of designating critical habitat and rejecting *New Mexico Cattle Growers*).

The district court in this case relied on the foregoing decisions to reject *New Mexico Cattle Growers* and hold that FWS is prohibited from considering impacts that may be co-extensive with the impacts from the species' listing under § 4(b)(2). App. 76-80. On appeal, the Ninth Circuit approved the baseline approach and affirmed FWS's determination that the only economic impact resulting from designating 8.6 million acres of federal land as critical habitat would be a small amount of administrative costs incurred by federal agencies.

App. 27-33. Relying on *Gifford Pinchot*, the Ninth Circuit rejected *New Mexico Cattle Growers*, concluding that the Tenth Circuit had relied on a "faulty premise" regarding the regulatory impact of critical habitat, and that the baseline approach is "more logical." App. 30-31.

Even more recently, the Ninth Circuit approved the baseline approach in rejecting a challenge to the designation of 850,000 acres of land in California and southern Oregon as critical habitat for a group of "vernal pool" species, relying on its opinion in this case. *Home Builders Ass'n of N. Cal. v. U.S. Fish and Wildlife Serv.*, ___ F.3d ___, 2010 U.S. App. LEXIS 16439 at *23-*26 (9th Cir. Aug. 9, 2010).

D. The Ninth Circuit's Opinion Should Be Reversed

At present, the baseline approach is valid in the Ninth Circuit, allowing FWS to ignore all economic costs related to designating critical habitat that are considered co-extensive with the species' listing. The Tenth Circuit, however, has not overruled or modified *New Mexico Cattle Growers*, and it remains the law in that circuit. By itself, this situation results in legal uncertainty when a species is found in multiple circuits, as is the case with the Mexican spotted owl and southwestern willow flycatcher. Indeed, if this case had been brought by a different party in a different state, *New Mexico Cattle Growers* would have been controlling precedent, and the result would have been different.

Moreover, listed species are found throughout the United States, and despite the requirement that critical habitat be designated concurrently with a species listing, *see* 16 U.S.C. § 1533(a)(3)(A), a majority of species do not have critical habitat designated.[6] Consequently, the conflict between the Ninth and Tenth Circuits is certain to result in more confusion as additional species are listed and more critical habitat is designated.

Equally troubling is the likelihood that the Ninth Circuit's position on the analysis mandated by § 4(a)(2) will be adopted by other circuits simply because it is the most recent judicial pronouncement on the issue. In fact, the Ninth Circuit's opinion is erroneous for several reasons, and should be reversed by the Court before this conflict spreads to other circuits.

1. The Ninth Circuit misread *New Mexico Cattle Growers*. The Tenth Circuit discussed but did not rely on the similar definitions of "jeopardize the continued existence of," which applies to the species, and "destruction or adverse modification" of critical habitat in FWS's § 7 consultation rules in condemning the baseline approach. The court explained:

---

[6] According to FWS's website, there are 1,371 species of wildlife, fish and plants listed as threatened or endangered in the United States, but only 596 of those species has critical habitat. *See* http://www.fws.gov/endangered/species/ (visited September 15, 2010).

> But the question of whether the impacts of listing and a CHD [critical habitat designation] are co-extensive is not the precise question before us. Rather the question is whether the FWS must analyze all of the economic impacts of critical habitat designation (regardless of whether the impacts are co-extensive with other causes), or only those impacts that are a "but for" result of the CHD.

N.M. Cattle Growers, 248 F.3d at 1284. The Tenth Circuit decided the issue based on the plain language of ESA § 4(b)(2), holding that the baseline approach conflicts with the language and intent of the statute. *Id.* at 1285. The ESA's language is clear: FWS must take into consideration the economic and other impacts of designating particular areas as critical habitat. 16 U.S.C. § 1533(b)(2). It is not qualified, for example, by a statement that impacts that might also result from a species' listing (or from some other factor) may be disregarded by the agency, which is precisely what occurs under the baseline approach.

2. Regardless of the approach used to analyze the economic impacts under § 4(b)(2), if the bulk of the land designated as critical habitat is not occupied by members of the species, the designation of critical habitat imposes significant regulatory burdens. As explained, § 7(a)(2) does not apply if no members of a species and no critical habitat are present in the project area. *See, e.g., Defenders of Wildlife*, 414 F.3d at 1069-70; *Ariz. Cattle Growers'*, 273 F.3d at 1244. Thus, in unoccupied areas, any regulatory burdens

imposed by § 7(a)(2) result solely from the critical habitat designation.

Under the baseline approach, however, all 8.6 million acres of critical habitat for the owl were not only treated as being currently occupied, but as being occupied *forever*. For example, if a rancher's grazing allotment is currently occupied by an owl, the baseline approach assumes that the allotment will always be occupied, triggering § 7 consultation when his grazing permit is renewed a decade from now. Such assumption defies logic. Once an area has been designated as critical habitat, any future discretionary federal action that modifies the habitat triggers § 7, regardless of whether members of the species are present, imposing a regulatory burden on land users. The baseline approach ignores this impact.

3. It is axiomatic that "'a reviewing court should not confine itself to examining a particular statutory provision in isolation.'" *Nat'l Ass'n of Home Builders*, 551 U.S. at 666 (quoting *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 132 (2000)). The Ninth Circuit violated this principle by disregarding the deadline for critical habitat designations. The ESA requires that, "to the maximum extent prudent and determinable," FWS designate critical habitat *concurrently* with the listing decision. 16 U.S.C. § 1533(a)(3)(A); *see also* 50 C.F.R. § 424.17(b). If critical habitat is not then determinable, FWS must complete the designation within one year. 16 U.S.C. § 1533(b)(6)(C); 50 C.F.R.

§ 424.17(b)(2). Unless critical habitat is not prudent, the ESA affords no other exceptions or delays. 16 U.S.C. § 1533(a)(3); *see also NRDC v. U.S. Dep't of the Interior*, 113 F.3d 1121, 1127 (9th Cir. 1997) (FWS "failed to discharge its statutory obligation to designate critical habitat when it listed the [species], or to articulate a rational basis for invoking the rare imprudence exception.").

If FWS complies with the law, there is no regulatory baseline against which the economic impacts of designating critical habitat can be compared. In that case, the economic analysis is situated precisely where Congress intended: concurrent with listing and serving as a counter-point to listing based solely on biology. Consequently, the baseline approach – which assumes that there is a pre-existing regulatory baseline – conflicts with the statutory scheme established by Congress. The Ninth Circuit dismissed this point, stating that "listing the species is a necessary antecedent to designating critical habitat." App. 32. But the statute and FWS's rules expressly require critical habitat to be designated "concurrently" with the listing, not "subsequently." *See* 16 U.S.C. § 1533(a)(3)(A)(i); 50 C.F.R. §§ 424.12, 424.17(b).

4. The Ninth Circuit also misapplied *Gifford Pinchot*. As explained, in *Gifford Pinchot*, the court did not address the requirements imposed by ESA § 4 for the designation of critical habitat. The case instead involved a challenge to biological opinions issued under § 7. As a result, the reasoning of *Gifford*

Pinchot is inapplicable to, and should not control how critical habitat is designated.[7]

Moreover, FWS did not rely on *Gifford Pinchot* to justify its use of the baseline method. FWS instead stated that it was "reviewing [*Gifford Pinchot*] to determine what effect it may have on the outcome of consultations pursuant to Section 7 of the Act." App. 85. The agency also took the position, as it did in designating critical habitat for the southwestern willow flycatcher, that critical habitat provides little benefit to species and is a waste of agency time and resources. App. 84-87. If critical habitat imposes no regulatory burdens on land users and provides no conservation benefit to the owl, it should not have been designated in the first place. *See* 50 C.F.R. § 424.12(a)(1)(ii).

In short, FWS concluded there would be no economic impacts from designating critical habitat across 8.6 million acres of land in four states for the Mexican spotted owl. On its face, this is an absurd result that underscores the fundamental problem

---

[7] For example, as explained above, critical habitat must be designated concurrently with the species' listing, at which time FWS is unlikely to know what actions might be required for the future recovery of the species. In addition, FWS is authorized to exclude from critical habitat areas that are "essential to the conservation of the species," 16 U.S.C. § 1532(5)(A)(i), based on economic and other impacts. The authority to exclude areas that meet the definition of critical habitat based on economic grounds is not consistent with the overarching recovery goal assumed by the *Gifford Pinchot* court.

with the baseline approach and demonstrates why it conflicts with the ESA, as the Tenth Circuit correctly held. This Court should grant the petition and reverse the Ninth Circuit's approval of the baseline approach.

III. THE COURT SHOULD REVIEW THE NINTH CIRCUIT'S UNLAWFUL SUBSTITUTION OF ITS OWN REASONING TO SUPPORT THE AGENCY'S CRITICAL HABITAT DESIGNATION

A. Statutory and Regulatory Background

In defining critical habitat in 1978, *see* Endangered Species Act Amendments of 1978, Pub. L. No. 95-632, § 2(1), 92 Stat. 3751 (1978), Congress deliberately distinguished between areas that are occupied by members of a listed species and unoccupied areas, allowing FWS to designate unoccupied areas as critical habitat only "upon a determination . . . that such areas are essential to the conservation of the species." 16 U.S.C. § 1532(5)(A)(i) & (ii) (App. 339). Notably, Congress was critical of FWS's failure to differentiate between areas "which are truly critical to the continued existence of a species" and areas "needed for population expansion," stating:

> [A]s much as 10 million acres of Forest Service land is involved in the critical habitat being proposed for the grizzly bear in three Western States. Much of the land involved in this proposed designation is not

> habitat that is necessary for the continued survival of the bear. It instead is being designated so that the present population within the true critical habitat can expand.

S. Rep. No. 95-874, at 10 (1978) (App. 359); *see also* H.R. Rep. No. 95-1625, at 25, *reprinted in* 1978 U.S.C.C.A.N. at 9475 (criticizing FWS's rule defining critical habitat because it "could conceivably lead to the designation of virtually all of the habitat of a listed species as its critical habitat") (App. 356).[8]

The two-part definition of critical habitat enacted by Congress effectively creates a regulatory hierarchy. Geographic areas not occupied by members of the species normally should not be designated as critical habitat. *See, e.g.*, H.R. Rep. No. 95-1625, at 18, *reprinted in* 1978 U.S.C.C.A.N. at 9468 ("the Secretary should be extremely circumspect in the designation of critical habitat outside of presently occupied area of the species") (App. 354). Instead, land outside of occupied areas may be designated as critical habitat "only when a designation limited to its

---

[8] Prior to the 1978 ESA amendments, FWS adopted rules governing § 7 consultation, which defined critical habitat as: "[A]ny air, land, or water . . . and constituent elements thereof, the loss of which would appreciably decrease the likelihood of the survival and recovery of a listed species or a distinct segment of its population. . . . Critical habitat may represent any portion of the present habitat of a listed species and may include additional areas for reasonable population expansion." *Interagency Cooperation Regulations; Final Rule*, 43 Fed. Reg. 870, 874-75 (Jan. 4, 1978).

present range would be inadequate to ensure the conservation of the species." 50 C.F.R. § 424.12(e); *see also Cape Hatteras*, 344 F. Supp. 2d at 125 ("Designation of unoccupied land is a more extraordinary event than designation of occupied lands. [FWS's] regulation prohibits designation of unoccupied lands unless designation of occupied lands is insufficient.").

Congress also added the requirement that critical habitat designations be based on the best available scientific data. Endangered Species Act Amendments of 1978, Pub. L. No. 95-632, § 11(4), 92 Stat. at 3765 (currently at 16 U.S.C. § 1533(b)(2)). This Court explained that the purpose of this requirement, which also appears in ESA § 7(a)(2), is to "ensure that the ESA not be implemented haphazardly, on the basis of speculation or surmise" and "to avoid needless economic dislocation produced by agency officials zealously but unintelligently pursuing their environmental objectives." *Bennett*, 520 U.S. at 176-77. Thus, the determination of whether an area is occupied must be based on credible scientific data, not on speculation.

B. The Court Should Review the Ninth Circuit's Determination that All 8.6 Million Acres of Critical Habitat Are Occupied by Owls

A fundamental rule of administrative law is that a court, when reviewing an administrative rule, "may not supply a reasoned basis for the agency's action

that the agency itself has not given." *State Farm*, 463 U.S. at 43 (citing *SEC v. Chenery Corp.*, 332 U.S. 194, 196 (1947)). "It is well established that an agency's action must be upheld, if at all, on the basis articulated by the agency itself." *Id.* at 50 (citing *Chenery*, 332 U.S. at 196; *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168 (1962); *Am. Textile Mfrs. Inst., Inc. v. Donovan*, 452 U.S. 490, 539 (1981)). In upholding the critical habitat determination, the Ninth Circuit violated this basic rule, and then compounded its error by engaging in speculation about the number of Mexican spotted owls in the southwest and how much habitat is truly critical.

FWS designated more than 8.6 million acres of federal land in four states as critical habitat, with no evidence that the bulk of this land is used by owls. FWS knew the locations of the vast majority of the birds when it designated critical habitat as well as the locations of habitat essential to their continued survival – the PACs. FWS stated in the 2004 Critical Habitat Rule that there are a total of 1,176 designated PACs and that the number of known owls on federal land in the southwest ranges from 1,176 to 2,352, depending on whether one bird or a pair occupies each PAC. App. 94.

FWS explained that a PAC includes a minimum of 600 acres, including the best nesting and roosting habitat in the area and the most proximal and highly used foraging areas. App. 88, 218. The agency stated that some non-territorial "floaters" exist as well as

dispersing juvenile owls. App. 218-219. But FWS gave no estimate of the number of owls outside PACs, and did not state that significant numbers of undiscovered owls exist. Nor did FWS state that Mexican spotted owls are migratory. Instead, it stated that owls exhibit high site fidelity; once dispersing male owls settle in a territory (the area defended by an owl) they rarely make additional movements outside their home range. App. 222, 223, 226. Otherwise, it would make no sense to identify and protect owl PACs. *See* App. 396-403 (Recovery Plan guidance for PACs).

Assuming that each PAC contains 650 acres, *i.e.*, the average size of the PACs on National Forests in Arizona and New Mexico, *see* App. 425, the total area is 764,000 acres – *less than 10 percent* of the 8.6 million acres designated as critical habitat. Consequently, most of the land designated as critical habitat is outside of a PAC with no verifiable record of current or recent occupancy by an owl. Nevertheless, FWS did not make the findings required under its rules to designate unoccupied areas as critical habitat. *See* 50 C.F.R. 424.12(e); *see also Cape Hatteras*, 344 F. Supp. 2d at 125. Instead, FWS explained: "Because the specific areas being designated are within the geographical area occupied by the species, we (*i.e.*, the Secretary of Interior) are not required to make a separate determination as to whether the lands included are essential to the conservation of the owl." App. 135. In other words, FWS stated that critical habitat is "occupied" under

the statute as long as it is found generally within a species' range.

As explained, the district court misapprehended the rationale given by the agency, stating that FWS "interpreted 'occupied' to include those 'areas where owls are known to occur or are likely to occur.'" App. 63-64. In the cited portion of the rule, however, FWS actually stated that owls are known to occur or are likely to occur in "protected areas," *i.e.*, PACs and pine-oak forests with slopes greater than 40 percent and where no timber harvesting has occurred in the past 20 years. App. 100. On appeal, the Ninth Circuit supplied an entirely different rationale, asserting that (1) there are actually a much larger number of owls than the estimate of known owls given by the agency in its rule, and (2) owls use far more territory than the area within a PAC. App. 17-19, 20-21, 24-25. This reasoning was based on speculation rather than credible scientific data.

First, the Ninth Circuit emphasized that the PACs "reflect only *known* owl sites," contending that "owl populations have been estimated to be significantly greater than the maximum 2,352 owls reflected by the number of PACs." App. 18 (emphasis original). As support, the court referred to a 1999 "pilot study" mentioned in the agency's environmental assessment, which estimated that the Upper Gila Mountains Recovery Unit, exclusive of tribal lands, contains 2,950 owls. But FWS's environmental assessment also stated that "[a] reliable estimate of the number of Mexican spotted owls found range-wide is not currently available."

App. 420. In the 2004 Critical Habitat Rule, FWS discussed two population studies, a 1999 study reporting population declines of 10 percent or greater in central Arizona and west-central New Mexico, and a 2003 study concluding that the decline in the Arizona population was likely temporary, while the New Mexico population appeared to be continuing to decline. App. 93-94. Furthermore, FWS responded to a comment concerning the possible delisting of the owl by stating that the species' populations may be declining. App. 110. The Ninth Circuit's assertion that "significantly greater" numbers of unknown owls exist was simply speculation.

Second, the Ninth Circuit explained that "PACs represent only the *best* habitat used by the owl," and that owls "regularly use substantial areas outside their PACs for foraging." App. 20 (emphasis original). According to FWS, however, a PAC includes 75 percent of an owl's foraging territory and "the most proximal and highly used foraging areas." App. 88, 218. If a PAC contains approximately 75 percent of an owl's foraging area, and PACs account for less than 800,000 acres of the critical habitat, how is it possible that owls regularly use the remaining 7.8 million acres for foraging, as the court held? But even if a much larger area is used to account for foraging and other activities, the amount of critical habitat is still grossly excessive. Assuming that the home range associated with each PAC is 2,000 acres, the total area equals 2.35 million acres. Further, if the number of PACs is doubled to account for large numbers of dispersing juveniles and "floaters" – an assumption

that has no support in the record – the total area still would be 4.7 million acres. The numbers simply do not add up, notwithstanding the Ninth Circuit's efforts to justify them.

The bottom line is that the amount of land designated as critical habitat is grossly disproportionate to the number of known owls on federal land in the southwest. The Ninth Circuit affirmed the agency on the basis that thousands of unknown owls exist requiring millions of acres of additional critical habitat. This improper speculation violated the requirement that the designation of critical habitat be based on the "best scientific data available." 16 U.S.C. § 1533(b)(2); *Bennett*, 520 U.S. at 176-77. Even worse, it is speculation *by the court*, which cannot substitute its own reasoning for that of the agency in order to uphold the agency's decision, as this Court has held. *E.g.*, *State Farm*, 463 U.S. at 50. FWS did *not* rely on the existence of thousands of undiscovered owls, and there is no credible scientific data supporting the Ninth Circuit's inexpert opinion.

The ACGA submits that the Court should review this result-driven determination, which violated a fundamental administrative law principle and implicates important issues concerning the designation of critical habitat, including the appropriate standard for designating unoccupied areas as critical habitat and the application of the

requirement that critical habitat be designated on the basis of the best scientific data available.

CONCLUSION

For the foregoing reasons, the ACGA urges the Court to grant the petition and review the Ninth Circuit's erroneous determination regarding the method FWS used in considering economic impacts under ESA § 4(b)(2) and that court's erroneous determination that the entire critical habitat area is occupied by owls.

Dated: October 1, 2010.

Respectfully submitted,

NORMAN D. JAMES
Counsel of Record
FENNEMORE CRAIG, P.C.
3003 North Central Avenue
Suite 2600
Phoenix, AZ 85012-2913
(602) 916-5346

THOMAS J. WARD
NATIONAL ASSOCIATION OF
HOME BUILDERS
1201 15th Street, NW
Washington, D.C. 20005-2800
(202) 266-8200

Counsel for Petitioner Arizona Cattle Growers' Association

Supreme Court, U.S.
FILED

No. 10-454

OCT 1 - 2010
OFFICE OF THE CLERK

In The
Supreme Court of the United States

ARIZONA CATTLE GROWERS' ASSOCIATION,

Petitioner,

vs.

SALAZAR, *et al.*,

Respondents.

On Petition For Writ Of Certiorari To The United States Court Of Appeals For The Ninth Circuit

APPENDIX TO PETITION FOR WRIT OF CERTIORARI

NORMAN D. JAMES
Counsel of Record
FENNEMORE CRAIG, P.C.
3003 North Central Avenue
Suite 2600
Phoenix, AZ 85012-2913
(602) 916-5346
njames@fclaw.com

THOMAS J. WARD
NATIONAL ASSOCIATION OF HOME BUILDERS
1201 15th Street, NW
Washington, D.C. 20005-2800
(202) 266-8200

Counsel for Petitioner Arizona Cattle Growers' Association

COCKLE LAW BRIEF PRINTING CO. (800) 225-6964
OR CALL COLLECT (402) 342-2831

APPENDIX

OPINION SOUGHT TO BE REVIEWED

Ariz. Cattle Growers' Ass'n v. Salazar, 606 F.3d 1160 (9th Cir. 2010).....App. 1

DISTRICT COURT OPINION AND ORDER

Ariz. Cattle Growers' Ass'n v. Kempthorne, 534 F. Supp. 2d 1013 (D. Ariz. 2008).....App. 35

AGENCY RULE REVIEWED ON APPEAL

Final Designation of Critical Habitat for the Mexican Spotted Owl, 69 Fed. Reg. 53182 (Aug. 31, 2004).....App. 82

STATUTES

16 U.S.C. § 1532(5).....App. 339

16 U.S.C. § 1533(a)(1).....App. 340

16 U.S.C. § 1533(a)(3)(A).....App. 340

16 U.S.C. § 1533(b)(1)(A).....App. 341

16 U.S.C. § 1533(b)(2).....App. 341

REGULATIONS

50 C.F.R. § 424.02(a).....App. 342

50 C.F.R. § 424.02(d).....App. 342

50 C.F.R. § 424.12.....App. 342

50 C.F.R. § 424.19.....App. 346

APPENDIX – Continued

LEGISLATIVE HISTORY

H.R. Rep. No. 95-1625 (1978) ..... App. 347

S. Rep. No. 95-874 (1978) ..... App. 358

Congressional Record, Oct. 14, 1978 (House Consideration and Passage of H.R. 14104, With Amendments) ..... App. 362

H.R. Rep. No. 97-567 (1982) ..... App. 372

MISCELLANEOUS PORTIONS OF THE RECORD

U.S. Dep't of Interior, Fish and Wildlife Service, *Recovery Plan for the Mexican Spotted Owl (Strix occidentalis lucida)* (1995) ..... App. 380

U.S. Dep't of Interior, Fish and Wildlife Service, *Environmental Assessment for Designation of Critical Habitat for the Mexican Spotted Owl* (Aug. 18, 2004) ..... App. 415

FOR PUBLICATION

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

ARIZONA CATTLE GROWERS' ASSOCIATION,
Plaintiff-Appellant,

v.

KEN SALAZAR, in his official capacity as Secretary of the Interior; H. DALE HALL, in his official capacity as Director of Fish & Wildlife Service; UNITED STATES DEPARTMENT OF THE INTERIOR; PAUL K. CHARLTON; ERIC H. HOLDER JR., Attorney General,
Defendants-Appellees,

CENTER FOR BIOLOGICAL DIVERSITY,
Defendant-intervenor-Appellee.

No. 08-15810

D.C. No. 2:06-CV-01744-SRB

OPINION

Appeal from the United States District Court
for the District of Arizona
Susan R. Bolton, District Judge, Presiding

Argued and Submitted
November 4, 2009—San Francisco, California

Filed June 4, 2010

Before: Betty B. Fletcher, William C. Canby, Jr., and Susan P. Graber, Circuit Judges.

Opinion by Judge B. Fletcher

COUNSEL

Norman D. James, Fennemore Craig, Phoenix, Arizona, for the plaintiff-appellant, Arizona Cattle Growers' Association.

Andrew C. Mergen, Rebecca Riley, & Robert H. Oakley, U.S. Department of Justice, Environment and Natural Resources Division, Washington, D.C., for the defendant-appellee, U.S. Fish and Wildlife Service.

Karen Budd-Falen, Budd-Falen Law Offices, LLC, Cheyenne, Wyoming, for amicus curiae, New Mexico Cattle Growers' Association.

Marc D. Fink, Center for Biological Diversity, Duluth, Minnesota, and Matt Kenna, Western Environmental Law Center, Durango, Colorado, for defendant-intervenor-appellee Center for Biological Diversity.

OPINION

B. FLETCHER, Circuit Judge:

Arizona Cattle Growers' Association ("Arizona Cattle") appeals from the district court's grant of summary judgment rejecting its challenge to the United States Fish and Wildlife Service's ("FWS") designation of critical habitat for the Mexican Spotted Owl. Arizona Cattle argues that the FWS unlawfully designated areas containing no owls as "occupied" habitat and that the FWS calculated the economic impacts of the designation by applying an impermissible

"baseline" approach. We have jurisdiction under 28 U.S.C. § 1291, and we affirm.

I. BACKGROUND

A. Litigation History

In 1993 the Mexican Spotted Owl was listed as a threatened species under the Endangered Species Act ("ESA"). The listing decision prompted a series of lawsuits alternately seeking to compel the FWS to designate critical habitat for the owl and, following the FWS's designation of habitat, attacking that designation.

The first such lawsuit was in 1995 to compel the FWS to designate critical habitat and resulted in the FWS's issuing a final rule designating 4.6 million acres of critical owl habitat, a designation that was quickly challenged in court and then revoked in 1998. After another lawsuit was filed to compel the FWS to designate habitat, the FWS proposed a rule in 2000 to designate 13.5 million acres of critical habitat and in 2001 the agency promulgated a final rule that again designated 4.6 million acres. That rule was later struck down and, rather than propose a new rule, the FWS reopened the comment period on the rule it proposed in 2000. In 2004 the FWS designated approximately 8.6 million acres of critical habitat. It is this designation, the 2004 Final Rule, that Arizona Cattle challenges in the current action.

Arizona Cattle moved for summary judgment to set aside the 2004 Final Rule as invalid on several grounds, only two of which are appealed. First, Arizona Cattle argues that the FWS impermissibly treated areas in which no owls are found as "occupied" under the ESA and, in doing so, bypassed the statutory requirements for designating unoccupied areas. Second, Arizona Cattle challenges the FWS's determination of the economic impacts of the designation, arguing primarily that the FWS applied an impermissible "baseline" approach that did not account for economic impacts of the critical habitat designation that are also attributable to the listing decision. The district court rejected Arizona Cattle's arguments and granted the Appellees' cross-motions for summary judgment.

B. The 2004 Final Rule

The FWS relied on three types of habitat management areas, first outlined in a Recovery Plan created in 1995, as a starting point for the 2004 Final Rule: protected areas, restricted areas, and other forest and woodland types. Protected areas are those areas containing known owl sites, termed Protected Activity Centers ("PACs"); "steep slope" areas meeting certain forest conditions; and legally and administratively reserved lands. "PACs include a minimum of 600 acres . . . that includes the best nesting and roosting (*i.e.*, resting) habitat in the area . . . . and the most proximal and highly used foraging areas." However, PACs contain only 75% of necessary foraging areas

for the owl. Restricted areas include non-steep slope areas with appropriate forest conditions that are "adjacent to or outside of protected areas." "Areas outside of PACs, including restricted areas, provide additional habitat appropriate for foraging." According to the 2004 Final Rule, restricted areas "also provide habitat for nonterritorial birds[,] . . . support dispersing juveniles, and . . . provide replacement nest/roost habitat on the landscape through time."

The FWS used these categories to "develop[ ] alternatives for critical habitat designation," selecting protected and restricted areas as a starting point for potential owl critical habitat.[1] In the 2004 Final Rule the FWS adopted an alternative that excluded all tribal lands from designation, refined critical habitat unit boundaries, and excluded certain areas that did not contain PACs. The FWS also excluded "Wildland-Urban Interface" areas identified as being at high risk of catastrophic wildfire. The 2004 Final Rule concluded that all of the designated habitat was occupied by the owl.

II. STANDARD OF REVIEW

We review the grant of summary judgment de novo, reviewing directly the agency's action under the

---

[1]As discussed in greater detail below, the FWS also analyzed the areas meeting these habitat characteristics for evidence of owl presence and used this information to refine its eventual designation.

Administrative Procedure Act's arbitrary and capricious standard. *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059, 1065 (9th Cir. 2004).

> [A]n agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

Motor Vehicle Mfrs. Ass'n of the U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983). In recognition of the agency's technical expertise the court usually defers to the agency's analysis, particularly within its area of competence. *See Earth Island Inst. v. Hogarth*, 494 F.3d 757, 766 (9th Cir. 2007); *Nat'l Ass'n of Home Builders v. Norton*, 340 F.3d 835, 843-44 (9th Cir. 2003). However, the court need not defer to the agency when the agency's decision is without substantial basis in fact, and there must be a rational connection between the facts found and the determinations made. *Earth Island*, 494 F.3d at 766.

III. THE FWS PROPERLY DESIGNATED ONLY OCCUPIED AREAS AS CRITICAL HABITAT

We first consider whether the owl "occupied" the designated areas, as defined by the ESA. We conclude that the FWS permissibly interpreted the word

"occupied" in the ESA to include areas where the owl was likely to be present and that, applying this definition, the FWS designated only "occupied" areas.

A. The ESA and the Definition of "Occupied"

The ESA defines a species' critical habitat as

> (i) the specific areas within the geographical area occupied by the species, at the time it is listed . . . , on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and
>
> (ii) specific areas outside the geographical area occupied by the species at the time it is listed . . . , upon a determination by the Secretary that such areas are essential for the conservation of the species.

16 U.S.C. § 1532(5)(A). The statute thus differentiates between "occupied" and "unoccupied" areas, imposing a more onerous procedure on the designation of unoccupied areas by requiring the Secretary to make a showing that unoccupied areas are essential for the conservation of the species. Although this appeal turns primarily on the factual question of whether the FWS treated unoccupied areas as occupied to avoid this more onerous process, we face the preliminary issue of what it means for an area to be "occupied" under the ESA.

It is useful to unpack this inquiry into two components: uncertainty and frequency. Uncertainty is a factor when the FWS has reason to believe that owls are present in a given area, but lacks conclusive proof of their presence. Frequency is a factor when owls are shown to have only an intermittent presence in a given area. Occasionally, both factors will play a part in determining whether an area is "occupied." Because the ESA permits only one of two possible outcomes for this inquiry—occupied or unoccupied—when the result is best characterized by a spectrum, we must determine the scope of the FWS's authority to categorize as "occupied" those areas that may not fit neatly into either pigeonhole.

We have ample guidance on the "uncertainty" issue. The ESA provides that the agency must determine critical habitat using the "best scientific data available." 16 U.S.C. § 1533(b)(2); *see also id.* § 1533(b)(6)(C)(ii). This standard does not require that the FWS act only when it can justify its decision with absolute confidence. *See, e.g., Pub. Citizen Health Research Group v. U.S. DOL*, 557 F.3d 165, 176 (3d Cir. 2009); *Greenpeace Action v. Franklin*, 982 F.2d 1342, 1354-55 (9th Cir. 1992). Although the FWS cannot act on pure speculation or contrary to the evidence, the ESA accepts agency decisions in the face of uncertainty. *Compare Ariz. Cattle Growers' Ass'n v. U.S. Fish & Wildlife*, 273 F.3d 1229, 1244 (9th Cir. 2001), *with Sw. Ctr. for Biological Diversity v. Babbitt*, 215 F.3d 58, 60-61 (D.C. Cir. 2000).

Turning to the "frequency" component, Arizona Cattle asserts that the word "occupied" is unambiguous and must be interpreted narrowly to mean areas that the species "resides in." In the context of the owl, they argue that such areas consist only of the 600-acre PACs. The FWS argues for a broader interpretation. It suggests that where a geographic area is used with such frequency that the owl is likely to be present, the agency may permissibly designate it as occupied. FWS contends that, at a minimum, this includes the owl's "home range"[2] and may include other areas used for intermittent activities.

We cannot agree that "occupied" has an unambiguous, plain meaning as Arizona Cattle suggests. The word "occupied," standing alone, does not provide a clear standard for how frequently a species must use an area before the agency can designate it as critical habitat. *Cf. Amoco Prod. Co. v. Vill. of Gambell,* 480 U.S. 531, 548 n.14 (1987) (explaining that there is "clearly" no plain meaning to the phrase "public lands which are actually occupied"). Merely replacing the word "occupied" with the word "resides" does not resolve this ambiguity. Rather, Arizona Cattle's argument that "occupied" is limited to areas where the species "resides" only underscores the

---

[2]Home range is the "area used by an animal during its normal activities"; in the case of the owl, estimates of the owl's home range size have varied substantially. Studies cited in the 1995 Recovery Plan, for example, estimated home range sizes varying from a low of 645 acres to a high of 3,831 acres.

flexibility of determining whether an area is "occupied." Viewed narrowly, an owl resides only in its nest; viewed more broadly, an owl resides in a PAC; and viewed more broadly still, an owl resides in its territory or home range. Determining whether a species uses an area with sufficient regularity that it is "occupied" is a highly contextual and fact-dependent inquiry. *Cf. Cape Hatteras Access Pres. Alliance v. United States DOI,* 344 F. Supp. 2d 108, 119-20 (D.D.C. 2004). Relevant factors may include how often the area is used, how the species uses the area, the necessity of the area for the species' conservation, species characteristics such as degree of mobility or migration, and any other factors that may bear on the inquiry. Such factual questions are within the purview of the agency's unique expertise and are entitled to the standard deference afforded such agency determinations. *See Earth Island,* 494 F.3d at 766.

Having found the term "occupied" dependent on a number of factors, we must look to whether the agency's proposed interpretation is permissible as applied to the owl's habits and habitat. Arizona Cattle argues that the FWS has never previously defined "occupied critical habitat." Thus, it contends, the agency interpretation urged on appeal is merely a self-serving construction found only in the FWS's legal briefs and is entitled to no deference. But the agency has defined "occupied critical habitat" in a manner very similar to the proposed interpretation.

In its Endangered Species Consultation Handbook, the agency defines "occupied critical habitat" as

> critical habitat that contains individuals of the species at the time of the [Section 7] project analysis. A species does not have to occupy critical habitat throughout the year for the habitat to be considered occupied (e.g. migratory birds). Subsequent events affecting the species may result in this habitat becoming unoccupied.

U.S. Fish & Wildlife Serv. & Nat'l Marine Fisheries Serv., Endangered Species Consultation Handbook 4-34 (1998), *available at* http://www.fws.gov/endangered/pdfs/Sec7/handbook/ch4.pdf. This definition recognizes that a species need not be present continuously for habitat to be considered "occupied." It also demonstrates that "occupied" habitat is not limited to areas in which the species "resides," as it includes habitat that merely "contains individuals of the species." At the very least, this definition is entitled to deference "proportional to its power to persuade" pursuant to the Supreme Court's holding in *Skidmore v. Swift & Co.*, 323 U.S. 134 (1944), and subsequent cases. *See United States v. Mead Corp.*, 533 U.S. 218, 235 (2001) (giving *Skidmore* deference to interpretations contained in agency manuals or enforcement guidelines); *Bamonte v. City of Mesa*, 598 F.3d 1217, 1228 (9th Cir. 2010) (explaining that, under *Skidmore*, agency positions not afforded the force of law are entitled to deference "proportional to [their] power to persuade" (internal quotation marks omitted)). The definition in

the handbook appears to be the result of the agency's considered judgment and, for the reasons we express below, we are persuaded by the agency's position that "occupied" should not be interpreted in a restrictive fashion.

The FWS permissibly rejected Arizona Cattle's "resides in" interpretation as too narrow. Looking to the context of the present appeal provides a solid justification for this rejection. The record demonstrates, for example, that PACs include only 75% of the owl's foraging habitat. Even if we assume that each owl "resides in" a PAC, we are not persuaded that Congress intended a definition of "occupied" that would exclude areas likely to be regularly used by the species. This is particularly true where those areas contain resources necessary for species conservation. Arizona Cattle's proposed interpretation would also exclude habitat for nonterritorial owls that may not be under constant or uniform use despite frequent owl presence. *Cf. Cape Hatteras Access Pres. Alliance,* 344 F. Supp. 2d at 119-20 (noting the agency's examination of areas for "consistent use").

The FWS has authority to designate as "occupied" areas that the owl uses with sufficient regularity that it is likely to be present during any reasonable span of time. This interpretation is sensible when considered in light of the many factors that may be relevant to the factual determination of occupancy. For example, Arizona Cattle's "reside in" interpretation would make little sense as applied to nonterritorial, mobile, or migratory animals—including

the owl—for which it may be impossible to fix a determinate area in which the animal "resides."[3] Such a narrow interpretation also would mesh poorly with the FWS's authority to act in the face of uncertainty.[4]

We are further persuaded by our decision in *Gifford Pinchot*. In that case we invalidated an agency interpretation of the ESA that effectively eliminated the independent significance of critical habitat as a measure to protect endangered species. *See Gifford Pinchot*, 378 F.3d at 1070; *see also Sierra Club v. U.S. Fish & Wildlife Serv.*, 245 F.3d 434, 441-43 (5th Cir. 2001). The same logic leads us here to reject Arizona Cattle's attempt to shackle the FWS with an overly narrow definition of "occupied." Critical habitat—including "occupied critical habitat"—is defined in relation to areas necessary for the *conservation* of the species, not merely to ensure its survival. *See* 16 U.S.C. § 1532(5)(A); *Gifford Pinchot*, 378 F.3d at 1070; *Sierra Club*, 245 F.3d at 441-42. Limiting the

---

[3]It is easy to envision other contexts in which this interpretation is even less helpful: consider salmon that swim upstream to spawn, periodical cicadas that live underground for years before emerging as adults, migratory birds, or other animals that require a diverse array of habitats.

[4]By way of example, because PACs represent only known owl sites, Arizona Cattle's proposed interpretation that only PACs are "occupied" because they reflect where the owl "resides" is likely substantially underinclusive and places a burden on the agency to count every owl. *See Sw. Ctr. for Biological Diversity*, 215 F.3d at 60-61 (explaining that the ESA's requirement to use the best scientific data available did not require the agency to conduct independent studies to count every single animal).

agency to designating habitat only where the owl "resides" focuses too narrowly on owl survival and ignores the broader purpose of the critical habitat designation.

Our decision is also informed by Supreme Court precedent that has treated the word "occupied" with considerable breadth. In *Amoco Production Co.*, the Court distinguished a statute referring to land "in Alaska" from a statute referring to "public lands which are actually occupied." 480 U.S. at 547-48 n.14. The Court explained that while "in Alaska" had a "precise geographical/political meaning[ ]," the phrase "public lands which are actually occupied" did not and was properly construed to include substantial areas of adjacent waters. *Id.* (citing *Hynes v. Grimes Packing Co.*, 337 U.S. 86, 110-16 (1949)). The Court's interpretation of "actually occupied" as including adjacent waters suggests that it is permissible for the FWS to interpret "occupied" more broadly than merely the area where an individual or species "resides."

Finally, this interpretation is supported by the purpose of the ESA "'to prevent animal and plant species endangerment and extinction caused by man's influence on ecosystems, and to return the species to the point where they are viable components of their ecosystems.'" *Trout Unlimited v. Lohn*, 559 F.3d 946, 949 (9th Cir. 2009) (quoting H.R. Rep. No. 95-1625, at 5 (1978), *reprinted in* 1978 U.S.C.C.A.N. 9453,

9455).[5] Where data are inconclusive or where habitat is used on a sporadic basis, allowing the FWS to designate as 'occupied" habitat where the species is likely to be found promotes the ESA's conservation goals and comports with the ESA's policy of "institutionalized caution." *See* 16 U.S.C. § 1531; *cf., e.g., Defenders of Wildlife v. Flowers,* 414 F.3d 1066, 1074 (9th Cir. 2005); *Sierra Club v. Marsh,* 816 F.2d 1376, 1386 (9th Cir. 1987) ("Congress clearly intended that [agencies] give the highest of priorities and the benefit of the doubt to preserving endangered species." (internal quotation marks omitted)).

It is possible for the FWS to go too far. Most obvious is that the agency may not determine that areas unused by owls are occupied merely because those areas are suitable for future occupancy. Such a position would ignore the ESA's distinction between occupied and unoccupied areas. *See Ariz. Cattle Growers' Ass'n,* 273 F.3d at 1244. We note as a caveat, however, that determining whether an area is occupied or merely will be occupied in the future may be

---

[5]Arizona Cattle cites to the legislative history surrounding the enactment of the statutory definition of "critical habitat." Although this history suggests that Congress was concerned that agencies were giving equal status to "lands needed for population expansion" as to those presently occupied by the species and that Congress intended the agency to be circumspect about designating unoccupied areas, the history sheds little light on what frequency of species use renders an area "occupied," the issue of substance in this case. *See* S. Rep. No. 95-874, at 10 (1978).

complicated in the context of migratory or mobile species. The fact that a member of the species is not present in an area at a given instant does not mean the area is suitable only for future occupancy if the species regularly uses the area.[6]

Having thus framed the inquiry, we turn to the primary issue before the court: whether the FWS included unoccupied areas in its critical habitat designation.

B. The FWS Did Not Designate Unoccupied Areas as Critical Habitat

After a thorough review of the record we find that the FWS did not arbitrarily and capriciously treat unoccupied areas as occupied. We reiterate that when an agency is acting within its expertise to make a scientific determination "a reviewing court must generally be at its most deferential." *Balt. Gas & Elec. Co. v. NRDC,* 462 U.S. 87, 103 (1983); *Lands Council v. McNair,* 537 F.3d 981, 993 (9th Cir. 2008) (en banc), *abrogated in part on other grounds by Winter v. NRDC,* 129 S. Ct. 365 (2008).

---

[6]Consider, for instance, habitat that a currently living owl has migrated through—and used—in the recent past, and through which owls are likely to migrate and use similarly in the future. While owl presence in this area at a particular time may be limited, we are disinclined to hold that the FWS must find this area "unoccupied" simply because, despite owl use in the recent past and foreseeable future, no owl is using the area during a particular temporal window.

The FWS took, as a starting point for its 2004 designation, the three types of habitat management areas that it developed in the 1995 Recovery Plan. Simply by virtue of the definitions of these habitat management types, there is a direct link between the designated territory and owl occupancy. PACs are explicitly defined with reference to frequent owl presence, and non-PAC protected areas and restricted areas are "devised around" and "adjacent to" PACs. More to the point, we note significant record support for owl occupancy of these areas in the form of studies correlating the habitat characteristics of protected and restricted areas with owl presence. *Cf. Gifford Pinchot,* 378 F.3d at 1066; *cf also Envtl. Prot. Info. Ctr. v. U.S. Forest Serv.,* 451 F.3d 1005, 1017 (9th Cir. 2006) (rather than counting individual animals, an agency may in appropriate cases use habitat as a proxy).

The agency did not stop there. It further refined its designation by adding and removing areas on the basis of evidence of owl occupancy or lack thereof. A striking example of this is the FWS's analysis of owl occupancy in the proposed critical habitat in Arizona.[7] This analysis proceeds, unit by unit, through the addition of areas to the critical habitat proposal on the basis of information about known owl locations. It also demonstrates that the FWS, even where it could

---

[7]This document is particularly significant because Arizona contains the largest areas of designated critical habitat.

not identify known owl sites (PACs) with certainty, was considering other evidence of current owl use in designating habitat, such as "owl calling routes."

A point of recurring significance to our analysis is that PACs reflect only *known* owl sites. Although the 2004 Final Rule identified 1,176 PACs, owl populations have been estimated to be significantly greater than the maximum 2,352 owls reflected by this number of PACs. For example, the 2004 Environmental Analysis notes that more owls than this may exist in a single recovery unit: "a pilot study (Ganey *et al.*, 2000) conducted in 1999 estimated the number of Mexican spotted owls for the Upper Gila Mountains Recovery Unit, exclusive of tribal lands, as 2,950." Since the listing of the species, the FWS has repeatedly revised upward its estimates of owl populations and identified new PACs. Likewise, the 2004 Final Rule recognizes that "[a]dditional surveys are likely to document more owls." Efforts by the FWS to identify other evidence of owl presence when it is unable to fix the location of a PAC with certainty are, therefore, highly significant.

Even more significant is the fact that the FWS excluded areas with evidence of few or no owls. The 2004 Final Rule explains that the FWS "did not designate some areas that are known to have widely scattered owl sites, low owl population densities, and/or marginal habitat quality." We find this statement supported by record evidence explaining the FWS's decision to exclude several areas due to an absence of owls. We likewise find that the record

demonstrates that where the FWS did include areas in which owl presence was uncertain—such as the North Kaibab Ranger District ("NKRD"), the Peloncillo Mountains, the Prescott National Forest, and certain "sky islands"—it did so after thoughtful consideration of owl occupancy. Finally, we note that a comparison of the areas designated in the 2004 Final Rule to PAC locations confirms that the FWS excluded the vast majority of critical habitat units that contained no PACs and refined the boundaries of the critical habitat units to exclude large areas that are distant from PACs.

The FWS's process for designating critical habitat gives us a strong foundation for our conclusion that the agency did not arbitrarily and capriciously treat areas in which owls are not found as "occupied." With this context in mind, we turn to Arizona Cattle's specific arguments that the agency improperly designated unoccupied areas as critical habitat and our reasons for disagreement.

1. The FWS Did Not Impermissibly Change Course in the 2004 Final Rule from Its Approach to Prior Designations

Arizona Cattle argues that the 1995 Recovery Plan and the agency's prior proposed habitat designations demonstrate that the FWS considered only PACs to be occupied and intended non-PAC areas—specifically restricted habitat—to provide future owl

habitat. This, it contends, is proof that the 2004 Final Rule must have falsely labeled restricted areas as "occupied." Arizona Cattle singles out an e-mail that it contends is a smoking gun demonstrating that the FWS made an abrupt shift in its description of protected and restricted areas, deciding to refer to these areas as "suitable habitat outside of PACs" rather than "unoccupied habitat."

We have already suggested some of the reasons why it would be inappropriate to read the 2004 Final Rule as treating PACs as the only areas occupied by the owl. We pause here to explain this conclusion further. First, the 2004 Final Rule is explicit that PACs represent only the *best* habitat used by the owl. The record also demonstrates that the FWS believed that owls may use habitat within a one-mile buffer around PACs and that PACs were intended to "minimize activities occurring in close proximity to owl nests . . . and preserve the best habitat close to known nesting and roosting sites." As already discussed, the record reflects that known, territorial owls regularly use substantial areas outside of their PACs for foraging. For these owls, we find that the agency's suggestion that the owl's home range is an appropriate measure of the territory occupied by the owl is well-supported by the record.

Even that measure would not present a complete picture of the territory occupied by the owl because PACs reflect only *known* owl sites. It is implausible to believe the FWS intended—or was statutorily required—to limit "occupied" habitat to PACs, or to the

home range of only known owls, when such a decision would be significantly underinclusive. Similarly, it is clear that PACs and the owl's home range do not reflect areas used by nonterritorial owls or areas used for certain other intermittent owl activities, such as dispersal or migration. The agency points out in the 2004 Final Rule, for example, evidence that "some [owls] migrate considerable distances 12-31 miles . . . during the winter."[8] It does not appear that the FWS intended to limit "occupied" habitat to PACs, nor was this decision arbitrary and capricious.

As to the FWS's purported shift in approach between the 2004 Final Rule and earlier agency actions, we find that it reflects merely a change in the agency's perspective, a movement away from an unnecessarily restrictive view of the areas the owl "occupies." In other words, the apparent difference between the 2004 Final Rule and the agency's prior approach did not arise because the agency suddenly decided to treat substantial areas where owls were not present as "occupied." The agency simply reassessed its previous approach, which focused narrowly on "known nesting sites" as the areas occupied by the owl, adopting the broader approach that we have held reflects the proper definition of "occupied." *See Nat'l*

---

[8]The 2004 Final Rule also notes that "some [owls] remain in the general area but exhibited shifts in habitat use patterns." Such shifts in habitat use could also explain some of the statements in the previous rule that discuss replacement of nesting and roosting habitat over time.

Ass'n of Home Builders v. Defenders of Wildlife, 551 U.S. 644, 658-59 (2007) (explaining that agencies may change their minds if proper procedures are followed and federal courts ordinarily review only an agency's final action); *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 44; *PLMRS Narrowband Corp. v. FCC*, 182 F.3d 995, 1001-02 (D.C. Cir. 1999). Because we conclude that the 2004 Final Rule remained within permissible bounds, we find no fault in the rule on this front.

The e-mail that Arizona Cattle contends demonstrates the FWS's shift in approach is explicit that this change was one of agency perspective and was entirely consistent with the evidence of the areas used by the owl. The e-mail states that, in its previous discussion of "occupied habitat," the agency was "really referring to . . . known nesting sites" and that "non-PAC protected areas, restricted areas, and other forest and woodland types within one mile of a PAC . . . may be used by owls at any given time." It explains that, although a narrow definition of "occupied habitat" that focused exclusively on nesting might not include these areas, non-PAC protected areas and restricted areas "may potentially harbor an owl at any given time." The same e-mail states that the FWS believed these areas were, in fact, presently used by owls—even if they had been previously labeled "unoccupied" under an unnecessarily restrictive approach to that term. Thus, statements in prior agency actions as to the suitability of certain areas for "future owl occupancy" or characterizing restricted areas as "unoccupied" lose their force because they

reflect this change in approach rather than a contradiction as to owl presence or use of these areas. We will "uphold a decision of less than ideal clarity if the agency's path may be reasonably discerned." *Nat'l Ass'n of Home Builders*, 551 U.S. at 658 (internal quotation marks omitted); *see also Wetlands Action Network v. U.S. Army Corps of Eng'rs*, 222 F.3d 1105, 1122 n.8 (9th Cir. 2000).

We find the e-mail's explanation for the agency's change in perspective supported by the record. For example, the record contains notes taken at a meeting that demonstrate the FWS's focus on assuring that the agency could identify a "reasonable expectation" of occupancy in the areas it planned to designate. The record likewise demonstrates the agency's view that restricted areas are "temporally occupied" even if not used full-time for nesting purposes. As we have already explained, there is sufficient record support for the agency's decision in the 2004 Final Rule not to treat PACs as the only areas occupied by the owl. Another example is an e-mail in which the agency explains that, although the exclusion of certain land resulted in the FWS's proposing to designate an area that contained no PACs, the agency considered the restricted area occupied.

The FWS was not attempting to designate areas devoid of owls as "occupied" in the 2004 Final Rule. Although seeming inconsistencies between the FWS's decisions may shed light on the agency's process, and changes from past positions that are unsupported by evidence are unlawful, ultimately it is the 2004 Final

Rule that is before the court and our inquiry is whether the FWS exceeded its authority or deviated from the evidence.[9] *See Nat'l Ass'n of Home Builders*, 551 U.S. at 658-59; *Wetlands Action*, 222 F.3d at 1122 n.8. The FWS's analysis solidly demonstrates the connection between the designated areas and owl occupancy, notwithstanding that the agency previously adopted an unnecessarily restrictive view of the areas the owl occupied as limited to known nesting sites. The agency's approach in the 2004 Final Rule was supported by the evidence and within permissible bounds.

2. The Amount of Land Designated Is Not Disproportionate to the Number of Owls

Arizona Cattle also argues that even using the owl's substantially larger home range as the appropriate measure for the territory occupied by the owl,

---

[9]Arizona Cattle does point to a few statements in the record questioning owl presence in areas proposed for designation in what eventually became the 1995 Final Rule. These statements are dated and their applicability to the 2004 Final Rule is questionable. The record reflects evolving agency knowledge as to owl population and location in the decade between the listing of the owl and the 2004 Final Rule, a point that is explicit in the 1995 Recovery Plan and that Arizona Cattle acknowledges in its reply brief. These isolated statements of disagreement with the FWS's approach in a prior rule promulgated in the mid-1990s do not overcome the record support for the agency's decision in 2004.

the FWS has designated a grossly disproportionate amount of land compared to the amount the owl occupies. It ties this argument to a seemingly simple calculation: multiplying the 1,176 PACs by the maximum estimated home range size of the owl of 3,831 acres, the resultant area is only approximately 4.5 million acres, in contrast to the 8.6 million acres designated. This calculation, however, rests on a faulty assumption that the PACs represent all extant owls. We have already explained that PACs reflect only *known* owl sites and that there is record support for the existence of substantially greater numbers of owls and undiscovered sites. Nor does this calculation, tied as it is to the number of PACs, reflect areas used by nonterritorial owls, areas used for juvenile dispersal, or areas used for owl migration.[10] Arizona Cattle's argument does not overcome the strong evidence that the FWS was focused on designating areas occupied by owls.

---

[10]We note again here the complexity of determining whether an area is occupied in the context of a mobile species. Areas used for juvenile dispersal, for example, may be necessary for owl survival but only used for portions of the year. The record reflects that juvenile dispersal involves the connection of owl groups into "metapopulations." It does not mean that habitat used for dispersal is not used by owls, but is rather under intermittent use for routine owl movement from one area to another. Regardless, we do not rest our holding on this point because, even absent this rationale, the FWS has sufficiently justified the designation.

3. The FWS's Decision to Include the North Kaibab Ranger District in the Designation Was Not Arbitrary and Capricious

Finally, we turn to the single specific location[11] where Arizona Cattle contends that the FWS has failed to demonstrate owl occupancy: the NKRD. Citing a letter to the FWS detailing certain studies conducted in the area without owl sightings, Arizona Cattle maintains that the agency treated the NKRD as occupied despite evidence that owls were in fact absent from the District. Arizona Cattle, however, overlooks a responsive memorandum by the agency in which the FWS explains that it declined to rely on those studies because it concluded that the studies were not reliable evidence that owls were not present. This memorandum also explains the reasons for the agency's conclusion that owls are present, including a history of owl sightings in the NKRD. This is precisely the sort of decision within the agency's technical expertise that we are not free to second-guess. This memorandum, along with the FWS's diligent review of the proposed designation for owl occupancy,

---

[11]Although Arizona Cattle points to areas where it contends that the amount of land designated is disproportionate to the number of PACs contained in the area, this argument is simply a variant on Arizona Cattle's mathematical argument we reject above. In addition, even as to known owls the argument relies on the 600-acre PACs, rather than a more accurate measure of occupied area.

detailed above, persuades us that the FWS's decision had a sound basis in fact.

We conclude that the agency designated only "occupied" areas as critical habitat, even though it may not have identified with certainty in all cases a known owl constantly inhabiting that territory. The process that the FWS used to select habitat for designation, the measures it took to exclude areas where owls were absent or use by owls was infrequent, and its careful work to confirm the presence of owls in the designated areas demonstrate that the FWS designated areas that correspond to habitat where the owl is likely to be found. The agency action was neither based on speculation nor counter to the evidence.

IV. THE FWS'S ECONOMIC ANALYSIS WAS NOT ARBITRARY AND CAPRICIOUS

Arizona Cattle challenges the FWS's analysis of the economic impacts of the critical habitat designation. For the reasons expressed below, we find no fault with the agency's economic analysis.

A. The FWS Permissibly Used the Baseline Approach in Conducting the Economic Analysis

The decision to list a species as endangered or threatened is made without reference to the economic effects of that decision. *See N.M. Cattle Growers Ass'n v. U.S. Fish & Wildlife Serv.*, 248 F.3d 1277, 1282 (10th Cir. 2001). Listing alone results in certain

protections for the species, including a requirement that federal agencies "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species." 16 U.S.C. § 1536(a)(2); *see also, e.g., id.* § 1538. These protections may impose economic burdens.

In contrast to the listing decision, under the ESA the agency may designate critical habitat only after considering the economic impact of the designation on any particular area. *Id.* § 1533(b)(2). The agency has discretion to exclude any area from the designation if the agency determines "that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat," unless exclusion would result in extinction of the species. *Id.* This can be a delicate balancing act. After critical habitat is designated, the ESA requires that federal agencies "insure that any action authorized, funded, or carried out by such agency . . . is not likely to . . . result in the destruction or adverse modification" of critical habitat. *Id.* § 1536(a)(2); *see also Gifford Pinchot,* 378 F.3d at 1069.

The crux of the parties' dispute over the FWS's economic analysis is whether the FWS was required to attribute to the critical habitat designation economic burdens that would exist even in the absence of that designation. The parties agree that the FWS applied the "baseline" approach to the economic analysis. Under this approach, any economic impacts of protecting the owl that will occur regardless of the

critical habitat designation—in particular, the burdens imposed by listing the owl—are treated as part of the regulatory "baseline" and are not factored into the economic analysis of the effects of the critical habitat designation.[12] Arizona Cattle, relying on the Tenth Circuit's decision in *New Mexico Cattle Growers Association,* argues that this was error and that the FWS was required to apply a "co-extensive" approach to the economic analysis. Under the co-extensive approach, the agency must ignore the protection of a species that results from the listing decision in considering whether to designate an area as critical habitat. Any economic burden that designating an area would cause must be counted in the economic analysis, even if the same burden is already imposed by listing the species and, therefore, would exist even if the area were not designated.

In *New Mexico Cattle Growers Association* the Tenth Circuit held that the baseline approach was impermissible under the ESA. *See* 248 F.3d at 1285. It did so, however, relying on an FWS regulation that defined "destruction or adverse modification" as effectively identical to the standard for determining

---

[12]For example, suppose that the decision to list the owl as endangered resulted in a ban on logging in a particular area, and that designating that area as critical habitat would independently result in the same ban. Because the listing decision would result in the logging ban even if the agency did not designate critical habitat in that area, the baseline approach would not treat the ban as a burden that was imposed by the critical habitat designation.

whether an agency action places a species in "jeopardy." *See id.* at 1283-85; *see also Gifford Pinchot,* 378 F.3d at 1069-70.[13] The Tenth Circuit held that this regulation rendered an economic analysis relying on the baseline approach "virtually meaningless" because it allowed the agency, in all cases, to find no economic impact to the critical habitat designation. *See N.M. Cattle Growers Ass'n,* 248 F.3d at 1283-85. Our court and others have since found the agency's definition of "adverse modification" too narrow. *See Gifford Pinchot,* 378 F.3d at 1070; *see also Ctr. for Biological Diversity v. BLM,* 422 F. Supp. 2d 1115, 1151-53 (N.D. Cal. 2006); *Cape Hatteras Access Pres. Alliance,* 344 F. Supp. 2d at 128-30. We therefore reject the Tenth Circuit's approach in *New Mexico Cattle Growers Association* as relying on a faulty premise and hold that the FWS may employ the baseline approach in analyzing the critical habitat designation.

The baseline approach is, if anything, more logical than the co-extensive approach. The very notion of conducting a cost/benefit analysis is undercut by incorporating in that analysis costs that will exist regardless of the decision made.[14] Moreover, the

---

[13]The Tenth Circuit declined to address whether the FWS's definition of "adverse modification" was invalid. *See N.M. Cattle Growers,* 248 F.3d at 1283-85.

[14]We note further the confusion engendered by the co-extensive approach on the "benefit" side of the equation. If the FWS must consider "burdens" imposed by the critical habitat designation as if there were no protections imposed by the

(Continued on following page)

practical relevance of the economic analysis under the ESA is to determine the benefits of excluding or including an area in the critical habitat designation: if there is no net benefit (such as a reduction in economic impacts) to excluding the area, the agency must designate it. *See* 16 U.S.C. § 1533(b)(2). The baseline approach, in contrast to the co-extensive approach, reflects this purpose.

Congress has directed the FWS to list species, and thus impose a regulatory burden, without consideration of the costs of doing so. *See* 16 U.S.C. § 1533(a); *N.M. Cattle Growers,* 248 F.3d at 1282. It would be strange to conclude that Congress intended the FWS to consider costs at the critical habitat phase that the agency was barred from considering at the listing phase where, as a result, the analysis would bear little relationship to reality.[15] It would also be strange to conclude that Congress intended to use the critical habitat designation to require the agency to consider the previously irrelevant costs of listing the species, particularly given that the decision to

---

listing decision, must it also assume that in the absence of the critical habitat designation the species is entirely unprotected in considering the "benefits" of designating a particular area? The co-extensive approach runs the risk of becoming a purely academic exercise.

[15]Although the Tenth Circuit is likely correct that inclusion of the costs of listing in the critical habitat analysis does not affect the FWS's *listing* process, *see N.M. Cattle Growers*, 248 F.3d at 1285, it has clear potential to distort the critical habitat analysis.

exclude an area from critical habitat for economic reasons is discretionary. *See* 16 U.S.C. § 1533(b)(2); *Bennett v. Spear*, 520 U.S. 154, 172 (1997). The simpler explanation is that the economic analysis of the critical habitat designation is exactly what it sounds like and is not intended to incorporate the burdens imposed by listing the species.

Arizona Cattle argues that if the FWS designated critical habitat at the same time as it listed the species, *see* 16 U.S.C. § 1533(a)(3), there would be no baseline to which to compare the critical habitat designation. Even if the FWS lists the species concurrently with designating critical habitat, however, listing the species is a necessary antecedent to designating habitat. We see little inconsistency with the FWS's considering the burdens imposed by the critical habitat designation while taking into account those necessarily imposed by the listing decision even in these circumstances.

Finally, Arizona Cattle argues that the baseline approach allows the FWS to treat the economic analysis as a mere procedural formality. We reject the argument that, as a matter of course, the FWS will neglect its duty to perform a thorough economic analysis. To hold otherwise would amount to a presumption that the FWS will act in an arbitrary and capricious fashion, a presumption that is inconsistent with the deference the court affords agencies. *See, e.g., Smith v. U.S. Forest Serv.*, 33 F.3d 1072, 1077 n.2 (9th Cir. 1994). Furthermore, contrary to Arizona Cattle's contention that the impact of designating

critical habitat cannot be negligible, the costs of a critical habitat designation could, in fact, be subsumed by the burdens imposed by listing the species—any burden that is entirely "co-extensive" with the listing decision will reflect exactly such a case.

We hold that the FWS permissibly applied the baseline approach in conducting the economic analysis of the effects of the designation.

B. Remaining Arguments

We can easily dispose of Arizona Cattle's two remaining challenges to the FWS's economic analysis. First, Arizona Cattle suggests that the FWS's analysis ignored the economic effects of designating unoccupied habitat. Having already rejected this argument's premise—that the FWS's critical habitat designation included unoccupied habitat—we need give no further consideration to this argument. Second, Arizona Cattle asserts that the FWS's economic analysis ignored the difference between the jeopardy and adverse modification standard in light of *Gifford Pinchot,* and should have considered the economic impacts of additional consultations and project modifications that the adverse modification standard imposes. Arizona Cattle did not make this argument at the district court level and we therefore do not consider it now.[16] *See Solis v. Matheson,* 563 F.3d 425,

---

[16]Although we need not reach it, we note that this argument appears fundamentally inconsistent with Arizona Cattle's

(Continued on following page)

437 (9th Cir. 2009); *Harger v. Dep't of Labor*, 569 F.3d 898, 904 n.9 (9th Cir. 2009).

V. CONCLUSION

We find no fault with the FWS's designation of habitat for the Mexican Spotted Owl. The FWS did not impermissibly treat unoccupied areas as "occupied," and we hold that it permissibly applied the baseline approach in analyzing the economic impact of the critical habitat designation.

The judgment of the district court is **AFFIRMED.**

---

primary complaint regarding the FWS's application of the baseline approach. The baseline approach counts precisely these economic impacts and Arizona Cattle's disagreement with the baseline approach is, in fact, that it counts *only* impacts like these.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ARIZONA

Arizona Cattle Growers' Association, Plaintiff, vs. Dirk Kempthorne, et al., Defendants, and Center for Biological Diversity, Intervenor-Defendant.	No. 06-CV-1744-PHX-SRB **OPINION AND ORDER** (Filed Feb. 4, 2008)

This matter arises out of the United States Department of the Interior and its Fish and Wildlife Service's (collectively the "Service") promulgation of the *Final Designation of Critical Habitat for the Mexican Spotted Owl*, 69 Fed. Reg. 53,182 (Aug. 31, 2004), under the Endangered Species Act ("ESA"), 16 U.S.C. § 1531, *et seq.* At issue are Plaintiff Arizona Cattle Growers' Association's Motion for Summary Judgment (Doc. 37), Defendants Dirk Kempthorne, et al.'s Cross Motion for Summary Judgment (Doc. 44), and Intervenor-Defendant Center for Biological Diversity's ("CBD") Motion for Summary Judgment (Doc. 45).

I. BACKGROUND

A. Procedural History

The events that precipitated this litigation began on December 22, 1989, when Dr. Robin D. Silver submitted a petition requesting that the Service consider listing the Mexican Spotted Owl (Strix occidentalis lucida) (the "Owl") as a threatened or endangered species under the ESA. *Final Rule to List the Mexican Spotted Owl as a Threatened Species*, 58 Fed. Reg. 14,248, 14,252 (March 16, 1993); *Ctr. for Biological Diversity v. Norton*, 240 F. Supp. 2d 1090, 1091 (D. Ariz. 2003). Almost four years later, on March 16, 1993, the Service issued the final rule listing the Owl as a threatened species. 58 Fed. Reg. at 14,248. At the time of listing, the Service opined that "[d]esignation of critical habitat is prudent, but not determinable at this time." *Id.*

In addition to vesting the Service with listing responsibilities, Congress has directed it to determine those areas that constitute critical habitat for listed species. 16 U.S.C. § 1533(a)(3). The Service must, "to the maximum extent prudent and determinable," designate critical habitat concurrent with the listing of any species as threatened or endangered. *Id.* If critical habitat is not determinable at the time of listing, then the Service "may extend the one-year period . . . by not more than one additional year." *Id.* § 1533(b)(6)(C)(ii). By February of 1994 the Service had yet to propose a rule designating critical habitat

for the Owl, so a group of concerned citizens and environmental organizations filed suit to compel the Service to designate the Owl's critical habitat. *Silver v. Babbitt*, 94-CV-337-PHX-RGS; *Norton*, 240 F. Supp. 2d at 1092. The court responded by ordering the Service to designate critical habitat in a final rule to be published no later than May 30, 1995. *Id.* On June 6, 1995, the Service designated 4.6 million acres of critical Owl habitat. *Final Rule Designating Critical Habitat for the Mexican Spotted Owl*, 60 Fed. Reg. 29,914.

Shortly after publication, the Owl's critical habitat designation was challenged in *Coalition of Arizona/New Mexico Counties for Stable Economic Growth v. U.S. Fish and Wildlife Service*, CV-95-1258-M (D.N.M. 1997), for failure to complete the review required by the National Environmental Policy Act, 42 U.S.C. § 4321, *et seq.* ("NEPA").[1] The court

---

[1]The Tenth Circuit has held that NEPA compliance is required prior to critical habitat designation, however, this position has not been adopted in the Ninth Circuit. *See Catron County Bd. of Comm'rs, N.M. v. U.S. Fish and Wildlife Serv.*, 75 F.3d 1429, 1435-36 (10th Cir. 1996); *but see Home Builders Ass'n of N. Cal. v. U.S. Fish and Wildlife Serv.*, 268 F. Supp. 2d 1197, 1233 (E.D. Cal. 2003) ("*Home Builders I*") (citing *Douglas County v. Babbitt*, 48 F.3d 1495, 1507 (9th Cir. 1995)) (rejecting *Catron* and quoting *Douglas County* for its holding that "NEPA does not apply to the Secretary's decision to designate a habitat for an endangered or threatened species under the ESA"); *see also Revocation of Critical Habitat for the Mexican Spotted Owl*, 63 Fed. Reg. at 14,378-79.

enjoined the Service from enforcing the critical habitat designation until completion of a NEPA review, leading the Service to revoke the critical habitat designation for the Owl on March 25, 1998. 63 Fed. Reg. 14,378; *Norton*, 240 F. Supp. 2d at 1092. Following the revocation, when no new proposed rule designating the Owl's critical habitat had yet been published, a new lawsuit was filed asking the United States District Court for the District of New Mexico to order the Service into action. *Proposed Designation of Critical Habitat for the Mexican Spotted Owl*, 65 Fed. Reg. 45,336, 45,339 (citing *Sw. Center for Biological Diversity and Silver v. Babbitt and Clark*, CIV 99-519 LFG/LCS-ACE (D.N.M. 2000)); *Norton*, 240 F. Supp. 2d at 1092. While recognizing that it was in violation of the ESA, the Service requested still more time for publication of the proposed and final rules. *Norton*, 240 F. Supp. 2d at 1092. These requests were denied and, on February 1, 2001, the service published a final rule designating 4.6 million acres of critical habitat. *Final Designation of Critical Habitat for the Mexican Spotted Owl*, 66 Fed. Reg. 8,530.

On August 27, 2001, the Center for Biological Diversity filed suit alleging that the Service's decision to designate roughly 4.6 of the proposed 13.5 million acres, and to exclude all National Forest Service lands, was in violation of the ESA and the Administrative Procedure Act ("APA"). *Norton*, 240 F. Supp. 2d at 1109. The court agreed and, on January 13, 2003, ordered the Service to publish a revised proposed

order within three months with a final order due following an additional three month period. *Id.* The Service then sought, and the court begrudgingly granted, an extension of these deadlines, although not to the extent that the Service requested. *Center for Biological Diversity v. Norton*, 2003 WL 22849594, *1 (D. Ariz. Feb. 19, 2003). On August 31, 2004 the Service published the Final Rule designating critical habitat, which is now challenged by Plaintiff. 69 Fed. Reg. at 53,182.

B. The ESA and Critical Habitat Designation

The ESA was enacted to, among other things, "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved." 16 U.S.C. § 1531(b). To further this policy, Congress directed the Secretaries of Commerce and the Interior to list threatened and endangered species and designate their critical habitats. *Id.* § 1532(15). ESA listing and critical habitat designation responsibilities for animals such as the Owl have been further delegated to the Service.

Critical habitat is defined as:

> (i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 1533 of this title, on which

> are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and
>
> (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 1533 of this title, upon a determination by the Secretary that such areas are essential for the conservation of the species.

Id. § 1532(5)(A). The Service must designate critical habitat "on the basis of the best scientific data available and after taking into consideration the economic impact" of the designation. *Id.* § 1533(b)(2).

C. Plaintiff's Challenge to the August 31, 2004 Critical Habitat Designation

At present the Service has designated approximately 8.6 million acres of federal land as critical Owl habitat including canyon and forest land in Arizona, New Mexico, Colorado, and Utah. 69 Fed. Reg. at 53,182. Plaintiff challenges the legality of this critical habitat designation on the following grounds: (1) the Service failed to identify the "physical or biological features . . . essential to the conservation of the species"; (2) the Service failed to determine at what point the Owl will be conserved, and thus cannot identify the features essential to that end; (3) the Service unlawfully designated areas not occupied by the Owl as occupied critical habitat; (4) the Service

failed to determine which areas contain the "physical or biological features . . . essential to the conservation of the species" and thus designated areas as critical habitat that are missing one or more of the essential features; (5) the Service improperly included as critical habitat areas without first determining whether they "may require special management considerations or protection"; (6) the Service did not designate Owl critical habitat using the best scientific data available; and (7) the Service failed to properly take into account the economic impacts of specifying the area as critical habitat.

In its Motion for Summary Judgment, Plaintiff asks the Court to set aside the Final Rule and remand to the Service. Defendants and Intervenor respond that the Service complied with both the ESA and the APA in promulgating the critical habitat designation, and thus no grounds exist for invalidating the Final Rule. In addition, they argue that even if the Court were to find that the Service was not in complete compliance with the statutory requirements, the Final Rule should remain in effect pending any remand.

The Court, having considered the Cross-Motions for Summary Judgment, Intervenor's Brief, and the oral argument made to the Court, now turns to address each of Plaintiff's arguments.

II. LEGAL STANDARDS AND ANALYSIS

Summary judgment is appropriately granted when there are no genuine issues of material fact, and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c). When the district court reviews an administrative agency decision under the Administrative Procedure Act ("APA"), "summary judgment is an appropriate mechanism for deciding the legal question of whether the agency could reasonably have found the facts as it did." *Occidental Eng'g Co. v. INS*, 753 F.2d 766, 770 (9th Cir.1985); *City & County of San Francisco v. United States*, 130 F.3d 873, 877 (9th Cir. 1997). "[T]he function of the district court is to determine whether or not as a matter of law the evidence in the administrative record permitted the agency to make the decision it did." *Occidental Eng'g*, 753 F.2d at 769.

The APA, 5 U.S.C. § 706, governs judicial review of agency decisions under the ESA. *Native Ecosystems Council v. Dombeck*, 304 F.3d 886, 901 (9th Cir. 2002). Section 706 states that a court "shall hold unlawful and set aside agency actions . . . found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2); *see also Sw. Ctr. for Biological Diversity v. U.S. Forest Serv.*, 307 F.3d 964, 975 (9th Cir. 2002). "This deferential standard ensures that the agency decision contains no clear error of judgment." *Nat'l Ass'n of Home Builders v. Norton*, 340 F.3d 835, 841 (9th Cir. 2003) (citation omitted). The court presumes regulations to be valid, but the inquiry into their validity is a "thorough,

probing, in-depth review." *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 415 (1971).

Under the arbitrary and capricious standard, the court must decide whether the Service "considered the relevant factors and articulated a rational connection between the facts found and the choice made." *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 105 (1983). The court must reverse an agency action when the agency has "'relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.'" *Pac. Coast Fed'n of Fishermen's Ass'ns, Inc. v. Nat'l Marine Fisheries Serv.*, 265 F.3d 1028, 1034 (9th Cir. 2001) (quoting *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)). Critical habitat designated under the ESA may also be invalid if it is determined that the Service either failed to use the "best scientific data available" or that it failed to "consider[ ] the economic impact, and any other relevant impact, of specifying any particular area as critical habitat." 16 U.S.C. § 1533(b)(2). The court's decision must be based on the administrative record, and "the basis for the agency's decision must come from the record." *Nat'l Ass'n of Home Builders*, 340 F.3d at 841 (citing *Ariz. Cattle Growers' Ass'n v. U.S. Fish & Wildlife Serv.*, 273 F.3d 1229, 1236 (9th Cir. 2001)). The court "cannot substitute [its] judgment for that of the agency." *Id.*

A. Identification of Essential Physical or Biological Features

In defining critical habitat, 16 U.S.C § 1532(5)(A) differentiates between habitat that is "occupied" and habitat that is not "occupied." For "area[s] occupied by the species," critical habitat is limited to areas containing "physical or biological features (I) essential to the conservation of the species and (II) which may require special management consideration or protection." 16 U.S.C § 1532(5)(A). Thus, to satisfy part one of the statutory definition of occupied critical habitat, the Service must identify the "physical or biological features essential to the conservation of the [Owl]." *Id.* Plaintiff contends that these features, also known as primary constituent elements ("PCEs"), are inadequately described in the critical habitat designation, and, therefore, violate the ESA.

The Owl's critical habitat designation identifies three categories of PCEs: (1) forest structure; (2) maintenance of adequate prey species; and (3) canyon habitat. 69 Fed. Reg. at 53,211. The PCEs for the Owl are as follows:

> A. [PCEs] related to forest structure:
>
> (1) a range of tree species, including mixed conifer, pine-oak, and riparian forest types, composed of different tree sizes reflecting different ages of trees, 30 percent to 45 percent of which are large trees with a trunk diameter of 12 inches (0.03 inches [sic]) or more when measured at 4.5 feet (1.4 meters) from the ground;

(2) a shade canopy created by the tree branches covering 40 percent or more of the ground; and

(3) large dead trees (snags) with a trunk diameter of at least 12 inches (0.3 meters) when measured at 4.5 feet (1.4 meters) from the ground.

B. [PCEs] related to maintenance of adequate prey species:

(1) High volumes of fallen trees and other woody debris;

(2) A wide range of tree and plant species, including hardwoods; and

(3) Adequate levels of residual plant cover to maintain fruits, seeds, and allow plant regeneration.

C. [PCEs] related to canyon habitat include one or more of the following:

(1) presence of water (often providing cooler and often higher humidity than the surrounding areas);

(2) clumps or stringers of mixed-conifer, pine-oak, pinyon-juniper, and/or riparian vegetation;

(3) canyon wall containing crevices, ledges, or caves; and

(4) high percent of ground litter and woody debris.

Id. Plaintiff argues that the "ESA by its very terms requires some minimal degree of specificity [in defining PCEs] which, in this case, has not been met." (Pl.'s Combined Opp'n and Reply to Defs.' and Def.-Intervenor's Cross-Mots. for Summ. J. ("Pl.'s Reply") at 4.) Chief among Plaintiff's concerns is the "vagueness [that] abounds with the descriptions of the PCEs" which it claims fails to "put the public on adequate notice as to the PCEs." (Pl.'s Mem. of P. & A. in Supp. of Mot. for Summ. J. ("Pl.'s Mot.") at 9-10.) To support this claim, Plaintiff highlights that "the Service does not provide a definitive list of qualifying trees"; that it uses vague terms including "high volumes," "wide range," and "adequate"; and that it uses generalized statements such as, "high percent of ground litter and woody debris." (Pl.'s Mot. at 9.) In response to Plaintiff's arguments, the Service contends that it used the best available science to arrive at the PCEs, and that this is all that the ESA requires.

If the Service were to set forth PCEs so utterly lacking in detail as to be facially deficient, then any critical habitat designation made in reliance on those PCEs would certainly fail to meet § 1532(5)(A)'s requirements for the simple reason that one cannot ascertain the physical or biological features essential to a species's conservation without first identifying those features with some minimal specificity. Indeed, where the Service has designated critical habitat without providing a sufficiently detailed description of the PCEs, at least one court has concluded that such a designation is arbitrary and capricious. *See*

Home Builders I, 268 F. Supp. 2d at 1211-13. In *Home Builders I* the court determined that the Service had essentially neglected to provide any meaningful description of the PCEs in the final rule designating critical habitat for the Alameda whipsnake. *Id.* at 1211. The Service's attempt to detail the PCEs for the whipsnake included unhelpful "sentences indicating that the [PCEs] 'are in' or 'may be found in' particular areas, or that particular habitat features 'may also contain' the elements," and generalizations such as: "a suitable range of temperatures," "sufficient" "corridors of plant cover," and "adequate insect populations." *Id.* at 1211-13. Fatal to the whipsnake habitat designation was that, "[n]one of these sentences tell the reader what the primary constituent elements actually are." *Id.* Plaintiff's attempt to draw parallels between the whipsnake PCEs and those specified for the Owl falls short of convincing the Court that the present Final Rule approaches the Service's failures identified in *Home Builders I*. While the Service may not have provided PCEs to a level of specificity sufficient to appease Plaintiff, it did satisfy its statutory obligation with the level of detail given in the Final Rule—and that is all the ESA requires.

To counter Plaintiff's reliance on *Home Builders I*, Defendants cite to a similar case, also from the Eastern District of California, *Home Builders Association of Northern California v. United States Fish and Wildlife Service*, 2006 WL 3190518 (E.D. Cal. Nov. 2, 2006) ("*Home Builders II*"), *modified on other grounds by* 2007 WL 201248 (E.D. Cal. Jan. 24, 2007), in support of their position that the PCEs were

set forth with the requisite level of specificity. The *Home Builders II* court addressed a challenge to the critical habitat designation for fifteen vernal pool species, ultimately concluding that the designation complied with the strictures of the ESA. 2006 WL 3190518, at *1. Similar to the arguments advanced by Plaintiff, the vernal pool species' PCEs were challenged for, among other things, lack of specificity. *Id.* at *16. Notably, the plaintiff argued that "there is no indication of the size of the uplands or the mounds or swales they contain, and no explanation of what kind of food in the form of detritus would be acceptable." *Id.* The court rejected these arguments, writing that "Home Builders do not reference scientific data with regard to the species or PCEs in this case that the FWS should have considered and disregarded." *Id.* The *Home Builders II* court, in rejecting the plaintiff's argument, jumped directly into an analysis that examined whether the PCEs were supported by the best scientific data available, without first assessing whether the PCEs met some sort of baseline level of reasonable specificity. *Id.* Plaintiff, in its Reply, challenges Defendants' reliance on *Home Builders II* by finding error in the court's decision to proceed without making this preliminary determination. Plaintiff contends that the "court did not apprehend that the challenge to the vernal pool species' PCEs—like the challenge to the [O]wl's PCEs—is independent of the record because the ESA by its very terms requires some minimal degree of specificity which, in this case, has not been met." (Pl.'s Reply (citing *Home Builders I*, 268 F. Supp. 2d at 1213).) Clearly there is some minimal level of specificity required—the Service may

not write an absurdly brief set of PCEs for a species and then rely on an argument that the PCEs are supported by the best available science. However, that level of specificity was reached in this case, just as it was in *Home Builders II*. Thus, the *Home Builders II* court's decision to limit its analysis to a review of the Service's compliance with the best available science standard was appropriate, a finding that is consistent with the holding of *Home Builders I*, which involved a set of PCEs patently less detailed.

Further undermining Plaintiff's argument is the clear indication from the *Home Builders I* court that it was more concerned with the Service's failure to explicitly describe the physical or biological features as being *essential* to the whipsnake's conservation than it was with the PCEs' lack of specificity. *Home Builders I*, 268 F. Supp. 2d at 1211, 1213. The *Home Builders I* court emphasized this distinction, writing "[m]ore significant, however, is the fact that Defendants do not provide a citation to any part of the Final Rule in which the Service identifies these four environments as essential for the conservation of the species." *Id.* at 1211. Later in its analysis, the court again uses this rationale to discredit what it characterized as "[t]he most definitive statement" provided in the list of whipsnake PCEs. *Id.* at 1213. Disregarding whether the description of these "definitive" features may have been sufficiently detailed, the court instead highlighted that the features were introduced by a phrase stating that they are "specific habitat features *needed* by whipsnakes." *Id.* at 1213. The court contrasted this with the Service's repeated

use of the term "essential" in other parts of the PCEs section of the rule and opined "that it is unclear whether the term 'need' used in this context is meant to be synonymous with the term 'essential.'" *Id.* The whipsnake PCEs were invalidated primarily because of the Service's inability to unequivocally state that they were in fact "essential to the conservation of the species" as required by the ESA. 16 U.S.C. § 1532(5)(A)(i). Thus, Plaintiff's reliance on *Home Builders I* as evidence that PCEs have in the past been held to some threshold standard is substantially undercut.

In responding to Plaintiff, Defendants and Intervenor, in large part, rely on two simple arguments: the ESA does not require the level of specificity demanded by Plaintiff, and the Service used the best available science to set forth the PCEs. The Court agrees with these statements. Both § 1532(5)(A) and 50 C.F.R. § 424.12 undoubtedly require that the Service use some level of specificity in enumerating PCEs—to hold otherwise would eviscerate the definition of critical habitat, as PCEs constitute an essential component of occupied critical habitat and their existence is dispositive to any determination. No statute or regulation provides a formula for the Service to use in setting forth PCEs. Instead, the relevant federal regulation states that "[p]rimary constituent elements *may* include, but are not limited to, the following: roost sites, nesting grounds, spawning sites, feeding sites, seasonal wetland or dryland, water quality or quantity, host species or plant pollinator, geological formation, vegetation type, tide, and specific soil types." 50 C.F.R. § 424.12(b)(5) (emphasis added). The PCEs

detailed by the Service address many of the categories contemplated by the regulation. For instance, "canyon habitat is used by owls for nesting, roosting, and foraging"; Owl "[b]reeding sites are located below canyon rims"; feeding sites include "canyon bottoms, on cliff faces and benches, and along canyon rims and adjacent lands"; geological features include "canyon wall containing crevices, ledges, or caves"; and vegetation is varied but specifies "mixed-conifer, pine-oak, pinyon-juniper," "hardwoods," and "residual plant cover to maintain fruits [and] seeds." 69 Fed. Reg. at 53,211.

Here the record does not support Plaintiff's argument that the PCEs are so vague as to make it unnecessarily difficult for the public to ascertain whether certain plots of land contain the Owl's PCEs. While certain terms used in the critical habitat designation, including those emphasized by Plaintiff, may, when viewed in isolation, be lacking in the requisite specificity, they are accompanied by other more detailed terms that, when taken together, are reasonably specific and identify the physical or biological features essential for the Owl's conservation. For example, the Service used the following description as one attribute related to forest structure: "large dead trees (snags) with a trunk diameter of at least 12 inches (0.3 meters) when measured at 4.5 feet (1.4 meters) from the ground." *Id.* This statement, and others like it, are evidence that the Service has endeavored to provide PCEs within a reasonable level of specificity. Given the deference that this Court

must accord the Service's decisions, the Court concludes that the PCEs are facially sufficient.

With the conclusion that the PCEs contain the minimum level of specificity requisite to surmount this preliminary hurdle, the Court now inquires whether the PCEs are supported by the best available science—the position repeatedly taken by Defendants and Intervenor. Defendants argue that "the critical habitat designation is sufficiently detailed" and that "[t]he level of detail the Plaintiff would like is inconsistent with the biological reality of the habitat requirements for the owl and the best available science." (Defs.' Summ. J. Reply ("Defs.' Reply") at 2.) Tellingly, Plaintiff does not argue that the Service's PCEs are based on incorrect data or suspect science. In fact, Plaintiff had the opportunity to submit comments challenging the Service's choice of PCEs, and the science upon which they are based, and even to suggest alternative scientific evidence for consideration. Neither Plaintiff nor any other interested party submitted such a comment. 69 Fed. Reg. at 53,185 (noting that "[d]uring the comment periods, we requested, but did not receive, any information regarding refinements to the [PCEs]."). Furthermore, Plaintiff conceded in the briefing that it "does not contend that the Service failed to use the best available scientific data in identifying the owl's PCEs." (Pl.'s Reply at 3.) The Court will not investigate whether the PCEs were based upon sound scientific record evidence as Plaintiff has failed to illuminate any contradictory evidence or even call into question any of the evidence cited by the Service as supporting the

PCEs.[2] Thus, the Court concludes that the PCEs meet the statutory criteria of the ESA.

---

[2]Plaintiff argues that the Service has impermissibly shifted the establishment of quantitative reference points for the Owl PCEs to the Section 7 consultation process which, Plaintiff claims, "is not permissible, because the agency has the obligation to put the public on adequate notice as to the PCEs that support critical habitat designation." (Pl.'s Mot. at 10.) The Court disagrees. The Service's first priority is to administer those portions of the ESA that are within its purview in a manner consistent with Congressional intent—an obligation that outweighs Plaintiff's concerns. That intent was concisely stated by the Supreme Court in *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 174 (1978), where it wrote, "Congress intended endangered species to be afforded the highest of priorities." This position is further supported by the legislative history of the 1979 amendments to the ESA indicating that during Section 7 consultations, species should be "give[n] the benefit of the doubt." H.R. Rep. No. 96-697, at 12 (1979) (Conf. Rep.), *as reprinted in* 1979 U.S.C.C.A.N. 2572, 2576. While not specifically targeted at the PCE listing process, these comments evidence a preference when administering the ESA towards making decisions that will assist in conserving the species, even when there arguably could have been a more precise determination given additional resources.

Clearly it would be preferable to provide the greatest level of specificity in all PCEs, thereby reducing reliance on Section 7 consultations. However, the Service's ability to provide such detail is tempered by the statutory command that critical habitat be designated at the time of listing, or, when necessary, no later than one year following the listing date. *See* 16 U.S.C. § 1533(b)(6)(C). When balancing the demands of timely critical habitat designation versus scientific precision, the Court is mindful of the fact that the ESA's rigid critical habitat designation timeline is an important part of achieving the stated purpose of "provid[ing] a means whereby the ecosystems upon

(Continued on following page)

B. Identification of the Point at Which the Owl will be Deemed Conserved

Conservation, as defined in the ESA, occurs when a listed species is brought "to the point at which the measures provided pursuant to this chapter are no longer necessary." 16 U.S.C. § 1532(3). The ESA defines occupied critical habitat, in part, as the areas containing "those physical or biological features essential to the conservation of the species." 16 U.S.C. § 1532(5)(A)(i). Plaintiff latches on to the phrase "essential to the conservation" and, from this, argues that it is impossible to know what features are essential to Owl conservation without first identifying at what point that ultimate goal will be attained. In

---

which endangered species and threatened species depend may be conserved." *Id.* § 1531(b).

Using the best available science, the Service was unable to provide the quantitative reference points desired by Plaintiff, and instead advised in the Final Rule that some "quantitative estimates (e.g., basal area, canopy closure, etc.)" would be best established "through consultation." 69 Fed. Reg. at 53,211. There is no statutory command that the Service provide exhaustive notice to the public concerning all PCEs. Conversely, the ESA explicitly requires the expeditious designation of critical habitat using the best available science. 16 U.S.C. §§ 1533(b)(6)(C), 1533(b)(2). In weighing the need to inform the public versus the Service's critical habitat designation duties, the Court concludes that delaying the specification of some quantitative aspects of the PCEs until consultation is permissible—especially where, as here, there is no private land included in the critical habitat designation and, thus, all land use decisions (e.g., grazing permits) will likely already involve the participation of agency biologists. (*See* Mem. in Supp. of Defs.' Cross-Mot. for Summ. J. and Opp'n to Pl.'s Mot. for Summ. J. ("Defs.'Mot.") at 12.)

support of this argument, Plaintiff relies on the reasoning of the *Home Builders I* court which held that, "if the Service has not determined at what point the protections of the ESA will no longer be necessary for the snake, it cannot possibly identify the physical or biological features that are an indispensable part of bringing the snake to that point." 268 F. Supp. 2d at 1214.

While tempting in its logical simplicity, the Court is unconvinced that one cannot move forward with a conservation effort without first identifying that precise point at which conservation will be achieved. Furthermore, as highlighted by the *Home Builders II* court, the logic used in *Home Builders I* cited no caselaw and was based not on an examination of the overall statutory scheme, but instead on logical supposition. This Court takes an approach, and reaches a conclusion, identical to that reached in *Home Builders II*: that the language of the ESA requires a point of conservation to be determined in the recovery plan,[3] not at the time of critical habitat designation.

---

[3]Development and implementation of a recovery plan for each listed species is mandated by the ESA in all instances except where "such a plan will not promote the conservation of the species." 16 U.S.C. § 1533(f)(1). Unlike critical habitat designations, no time frame has been established for the promulgation of recovery plans. *Id.* In determining how to allocate resources towards recovery planning, the ESA requires that the Service "give priority to those endangered species or threatened

(Continued on following page)

A fundamental rule of statutory construction is "that a negative inference may be drawn from the exclusion of language from one statutory provision that is included in other provisions of the same statute." *Hamdan v. Rumsfeld*, 126 S. Ct. 2749, 2766-67 (2006) (citing *Russello v. United States*, 464 U.S. 16, 23 (1983) ("'[W]here Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion.'")). The ESA is a comprehensive piece of environmental legislation and, as such, it is necessary to examine all of its requirements in order to construe its specific commands. Viewed in isolation, the process of critical habitat designation seems a logical place to insert a requirement that the Service determine the point where the species will be conserved. However, instead, Congress explicitly instructed the Service to make this determination in the species's recovery plan. 16 U.S.C. § 1533(f).

Recovery plans must incorporate three separate categories of information, the second of which includes "objective, measurable criteria which, when met, would result in a determination, in accordance with the provisions of this section, that the species be removed from the list." *Id.* § 1533(f)(B)(ii). In

---

species . . . that are most likely to benefit from such plans." *Id.* § 1533(f)(1)(A).

contrast, the statutory language relating to critical habitat designation imposes no similar obligation. The Court presumes, therefore, that Congress, by requiring the inclusion of "objective, measurable criteria" specifying the point of conservation in one ESA section, while excluding it from another, acted intentionally. Plaintiff has offered no persuasive legal argument sufficient to call this presumption into question and accordingly its position is in opposition to Congressional intent.

Further distinguishing these two sections is the strict timeline imposed by Congress which mandates timely designation of critical habitat. There is no similar requirement for recovery plans. Had Congress deemed the point at which the species will be conserved as essential to the listing of the PCEs, then logically it would have included that requirement at the critical habitat designation stage. Rather, the ESA reflects a preference for swift designation of critical habitat with promulgation of the recovery plan—and its detailed explanation of when a species can be deemed conserved—to be more appropriately rendered at some future date.

To address Plaintiff's more basic point, the Court is not persuaded that PCEs cannot be determined without first identifying the point where the Owl will no longer need ESA protection. Many elements incorporated in the Owl's PCEs, such as those specifying nesting sites and adequate prey species, would clearly be required for Owl conservation regardless of whether the Owl is deemed conserved after its population

reaches one thousand or one million Owl individuals. All species need essential items including food, water, and shelter, and it is apparent that the Service can determine the areas containing these critical habitat elements without first knowing the point when the Owl will no longer be in need of ESA protection. The Court concludes that the Service fully complied with the ESA by setting forth PCEs, and designating critical habitat, without first determining at what point the owl will be deemed conserved.[4, 5]

---

[4]In its Reply, Plaintiff devotes substantial space to an argument premised on the Ninth Circuit's holding in *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Service*, 378 F.3d 1059 (9th Cir. 2004). In *Gifford Pinchot*, the court held that a regulation interpreting the adverse modification standard used in Section 7 consultations was invalid because it contravened Congressional intent by "read[ing] the 'recovery' goal out of the adverse modification inquiry." *Id.* at 1069. Plaintiff alleges that the Service's actions in this case similarly eliminate the recovery requirement, except this time in the context of critical habitat designations. While this argument is legally plausible, it is not supported by any record evidence that the Service actually failed to consider the Owl's recovery while drafting the PCEs. The Court has already determined that the Service is not required to specify the point of conservation in the critical habitat designation. Without any factual argument to contravene the Service's assertion that it "appropriately designated habitat for survival *and recovery*," the Court has no reason to disbelieve the Service's assertion. (Defs.' Reply at 3 (emphasis added).)

Plaintiff's reliance on *Gifford Pinchot* is vulnerable to an additional attack because if Plaintiff's argument were found factually supported, the result would be to *expand* the Owl's habitat, not decrease it. Plaintiff contends that the Service has erred by failing to acknowledge "that critical habitat also has a recovery or conservation component." (Pl.'s Reply at 5.) Accordingly,

(Continued on following page)

---

this alleged failure caused the service to designate Owl habitat "without regard for the species's conservation." (Pl.'s Reply at 5.) However, *Gifford Pinchot* held that "it is logical and inevitable that a species requires *more* critical habitat for recovery than is necessary for the species survival." 378 F.3d at 1069 (emphasis added). Thus, implicit in Plaintiff's argument that only survival—and not recovery or conservation—was considered, is the assertion that the Service should have designated more, not less, habitat. Plaintiff's standing in this suit is based upon the fact that it will be "substantially and negatively impacted by the designation of critical habitat for the owl." (Decl. Of Charles B. Lane in Supp. Of Pl.'s Mot. for Summ. J. at 2.) The Court cannot comprehend how Plaintiff could be injured by the Service's supposed under-designation of habitat acreage. *See Hein v. Freedom From Religion Found., Inc.*, 127 S. Ct. 2553, 2574 (2007) (reiterating that the "irreducible constitutional minimum of standing" requires that the plaintiff demonstrate "(1) a 'concrete and particularized' 'injury in fact' that is (2) fairly traceable to the defendant's alleged unlawful conduct and (3) likely to be redressed by a favorable decision").

[5]Incorporated in Plaintiff's argument that the Service has failed to determine the Owl's point of conservation is an explicit attack on the Owl Recovery Plan, which was published in 1995. *See* 69 Fed. Reg. at 53,183. Plaintiff states that, "the [recovery] plan does not provide the definitive criteria necessary to determine when the owl will be conserved." (Pl.'s Mot. at 11.) As the legal sufficiency of the Recovery Plan is not at issue in the case, Plaintiff's argument must be viewed as an attempt to graft the recovery planning requirements into the critical habitat designation phase. Any claimed deficiencies in the Recovery Plan have little relevance to the critical habitat designation for the simple reason that the Service is under no obligation to create a recovery plan prior to designating critical habitat. Thus, any reference to the Recovery Plan cannot serve as a basis to invalidate the Owl's critical habitat designation.

C. Designation of Occupied Versus Unoccupied Critical Habitat[6]

The Service may designate critical habitat that is either "occupied" or "outside the geographical area

---

[6]Plaintiff, in both its Motion and Reply, argues at length that the Service has improperly shifted the designation of critical habitat to the Section 7 consultation process by including areas within the Owl critical habitat that contain no Owl PCEs. (Pl.'s Mot. at 13-14; Pl.'s Reply at 6-7.) According to Plaintiff, the Service erred by including certain areas using metes and bounds while simultaneously excluding these areas by written definition. 50 C.F.R. § 424.12(c) provides that "[e]ach critical habitat will be defined by specific limits using reference points and lines as found on standard topographic maps of the area." The Owl critical habitat designation "mapped critical habitat boundaries so as to exclude State and private lands. Where this was not possible, State and private areas are not included by definition in th[e] designation." 69 Fed. Reg. at 53,211.

Plaintiff contends that 50 C.F.R. § 424.12(c) contains "[n]o allowance . . . for exclusions 'by definition.'" (Pl.'s Reply at 6.) This position, however, is not supported by case law and merely seeks to impose an obligation on the Service beyond that contemplated by the regulation. The Service complied with the regulation by providing a metes and bounds description of the habitat, and its decision to exclude some areas within those metes and bounds by definition was well within its proper exercise of discretion. The four affected States and any private landowners will not be forced to resort to Section 7 consultation, as the plain language of the Final Rule clearly excludes their property from the designation. Additionally, Plaintiff's suggestion that the Service failed to use the best scientific methods by opting not to conduct a "walking tour" of the 8.6 million acre site is preposterous. (Pl.'s Reply at 7.) The Court rejects this contention outright and finds that the Service was well within its authority when it used the best available science to exclude certain areas within the metes and bounds by definition, instead of using metes and bounds to trace around every piece of State and private property.

occupied" by the species. 16 U.S.C. § 1532(5)(A). Differentiation between occupied and unoccupied habitat is necessary so that the Service may apply the proper ESA analysis. Statutory conditions that must be met before designating unoccupied areas are more onerous that those needed for occupied habitat. *Id.* The Final Rule designated occupied habitat only; the Service has not designated unoccupied habitat for the Owl. Plaintiff believes that the Final Rule impermissibly "blurs the distinction between occupied and unoccupied critical habitat by designating as occupied habitat . . . areas where owls are likely to occur." (Pl.'s Reply at 7.) As a result, Plaintiff contends that the Service applied the less stringent requirement to areas that the Service acknowledged are locations where the Owl is merely "likely to occur." Plaintiff argues that the Service's decision to include those areas was based on an unreasonable interpretation of the statutory language, and that, for this reason, the designation is invalid. The Service responds that it reasonably interpreted the term occupied to include those areas where the Owl is likely to occur, and further contends that this interpretation is owed deference by the Court.

"When a court reviews an agency's construction of the statute which it administers, it is confronted with two questions. First, always, is the question whether Congress has directly spoken to the precise question at issue." *Chevron U.S.A., Inc. v. Natural Res. Def. Counsel, Inc.*, 467 U.S. 837, 842 (1984). While Congress did provide a list of definitions in the

ESA, it chose not to define "occupied." *See* 16 U.S.C. § 1532; *Cape Hatteras Access Pres. Alliance v. U.S. Dep't of Interior*, 344 F. Supp. 2d 108, 120 (D.D.C. 2004) (finding that "[t]he ESA does not define 'occupied'" and that "the Service has retained flexibility" when defining the term). It is reasonable to infer, therefore, that Congress did not speak on this precise question. Where, as is the case here, the statute is "silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute." *Chevron*, 467 U.S. at 843. In a situation where Congress has implicitly delegated authority to the agency, "a court may not substitute its own construction of a statutory provision for a reasonable interpretation made by the administrator of an agency." *Id.* at 844. When reviewing the interpretation for reasonableness, "considerable weight should be accorded to an executive department's construction of a statutory scheme it is entrusted to administer." *Id.*

Generally, formal agency actions, such as those resulting from notice-and-comment rulemaking, warrant *Chevron* deference. *Christensen v. Harris County*, 529 U.S. 576, 587 (2000). However, agency actions that lack the force of law, such as opinion letters, policy statements, and agency manuals, are not entitled to *Chevron* deference. *Id.* In this case, Plaintiff argues that the Service's interpretation of the term "occupied" is not entitled to *Chevron* deference, and instead should be reviewed under the less

deferential framework set forth in *Skidmore v. Swift & Co.*, 323 U.S. 134 (1944). In support of this position, Plaintiff relies exclusively on *United States v. Mead Corp.*, 533 U.S. 218 (2001), a case involving a tariff classification ruling by the United States Customs Service. In *Mead*, the Supreme Court addressed a Customs ruling that was not subject to notice-and-comment procedures, did not bind third parties, was only conclusive between the recipient and the agency, and was one of 10,000 to 15,000 of these letters issued each year out of 46 different customs offices. *Id.* at 233. The Final Rule in this case could not be more different. Here the critical habitat designation was subject to notice-and-comment, was part of a complex deliberative process involving substantial agency resources, and is universally legally binding. Critical habitat designations bear none of the indicia attributed to the Customs rulings in *Mead* and, thus, the Final Rule and its inclusion of areas where the Owl is "likely to occur" within the area of "occupied" habitat will be accorded *Chevron* deference.

Plaintiff contends that because the term "occupied" is not defined in the ESA, the "Court should ascribe to it the ordinary dictionary meaning." (Pl.'s Mot. at 14.) This suggestion, however, is at odds with *Chevron's* command that the Court give deference to the Service's interpretation. Thus, the Court rejects Plaintiff's request to apply the common dictionary definition and instead will ascribe to the term "occupied" any meaning given by the Service, so long as that interpretation is reasonable. Here the Service

interpreted "occupied" to include those "areas where owls are known to occur or are likely to occur." 69 Fed. Reg. at 53,185. Inclusion of those areas where Owls are "likely to occur" is, upon close examination, a reasonable interpretation of 16 U.S.C. § 1532(5)(A), and one that the court will not disturb.

The ESA requires that land be identified as either occupied or unoccupied; there is no third category. In reality, the best available science does not always permit the Service to state with certainty whether a particular area is occupied. With the Owl, the Service contends that given the "limits of tracking species, the highly mobile nature of the owl, and the availability of scientific information about the habitats of the owls," a finding of "likely to occur" was the highest level of certainty that the Service could achieve in certain areas. (Defs.' Mot. at 19.) The Service's decision to treat those areas where the Owl is "likely to occur" as occupied is reasonable because the best available science led it to conclude that these areas are more likely than not areas where the Owl will occur. This flexible approach allows the Service to designate areas as occupied critical habitat when a preponderance of the evidence suggests that Owls reside there.

The position taken by the Service is not, as Plaintiff suggests, in conflict with the court's decision in *Home Builders I*. There the court held that while "uncertainty as to exactly where the [species] may be found does not mean that a designated area is not critical habitat, at some point such uncertainty makes

it an abuse of discretion for the Service to designate the land as occupied under section 1532(5)(A)(i)." *Home Builders I*, 268 F. Supp. 2d at 1221. That point of uncertainty was reached in *Home Builders I* because the plaintiff had cited to portions of the record suggesting that "specific information was available to the Service that some of this land was not, in fact, occupied by the snake." *Id.* Thus, evidence existed that the Service had designated occupied critical habitat in areas where it knew no snakes were present. By neglecting to counter this evidence, the Service left the court to conclude that the "failure to articulate a rational reason for including the areas in question within the occupied critical habitat in the face of evidence to the contrary . . . was an abuse of discretion." *Id.* at 1222. In this case, no evidence has been offered to show that the Service believed any designated Owl habitat to be anything other than occupied by the Owl or places where the Owl is "likely to occur." Accordingly, the Service's uncertainty concerning the Owl has not crossed that point alluded to by the *Home Builders I* court.

While the approach taken by the Service may not be the one that this Court would have arrived at independently, *Chevron* precludes the Court from substituting its own judgment where the agency's determination was reasonable. 467 U.S. at 844. The Service concluded that there is a substantial likelihood that there are indeed Owls living in the challenged areas and its decision to define those areas as occupied seems more rational than the

alternative—defining the areas as unoccupied in contravention of its scientifically based determination—and is reasonable.

D. Areas Containing Fewer than All Essential Physical or Biological Features

In the Final Rule, the Service wrote that it was "including specific protected and restricted areas . . . because they contain one or more [PCEs]." 69 Fed. Reg. at 53,211; *see also id.* at 53,189. Plaintiff contends that this renders the critical habitat designation invalid because "[i]f an area is designated as critical habitat that contains fewer than all identified PCEs, then either (1) the area is not capable of serving the conservation goals of the species because essential elements to that goal are absent, or (2) the area is in fact capable of serving the species's conservation goals, in which case those PCEs that are not present are not essential to the species's conservation." (Pl.'s Reply at 9.) The Service responds that its statement "is not intended to allow the Service to designate unsuitable habitat" and that just because "one or more PCE is required to designate an area as critical habitat, . . . the mere presence of one or more of the PCEs does not qualify an area as critical habitat." (Defs.' Reply at 3-4.) Because Plaintiff fails to cite record evidence consistent with its assertions, the Court does not reach the question of whether a particular habitat can be designated in an area containing fewer that [sic] all the PCEs for that type of habitat.

Plaintiff challenges the Final Rule in hypothetical terms by suggesting that "the Service considers an area to qualify as critical habitat so long as it contains just one PCE *of any particular type of habitat*." (Pl.'s Reply at 9.) However, it is not enough for Plaintiff to simply poke holes in the Final Rule based on conjecture. If there were some evidence that the Service had designated critical habitat in an area otherwise nonessential to Owl conservation, and justified its actions because of the presence of some isolated PCE, then the Court would address the legal question. While the Service's language clearly indicates that it believes it is legally permitted to designated habitat in areas containing "one or more" PCE, there is no evidence that it did so with respect to the Owl. As Plaintiff has not cited any record evidence to support its theory, it must fail.

E. Critical Habitat may Require Special Management Considerations or Protection

To qualify as occupied critical habitat, a designated area must contain "physical and biological features . . . which may require special management considerations or protection." 16 U.S.C. § 1532(5)(A)(i). Plaintiff argues that the Service has failed to comply with this requirement because it "made no such finding for each of the 52 critical habitat units . . but simply made a general finding that all units may require special management consideration or protection . . . without specifying the particular considerations or

protections applicable." (Pl.'s Reply at 10.) This argument fails because it is premised on a misunderstanding of the law.

There is no requirement that the service make a separate determination for each of the 52 habitat units as Plaintiff demands. To illustrate this point it is necessary to examine the precise wording of the ESA. Section 1532(5)(A)(i) states that the term occupied critical habitat means:

> the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 1533 of this title, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection

The wording of the statute reveals that the phrase: "which may require special management considerations or protection" solely modifies the words "physical and biological features"—not the phrase "specific areas," which appears earlier in the sentence. Accordingly, the statute does not require anything more than a finding that the physical and biological features *themselves*, not the 52 habitat units, may require special management. Indeed, a reading of the Final Rule confirms that the Service has fulfilled this lone requirement, and any specificity demanded by Plaintiff is simply unwarranted by the statutory language.

Along with its central argument, Plaintiff sets forth a number of additional arguments, all of which aim to undercut the Service's assertion that the PCEs may require special management considerations.[7] Generally, Plaintiff believes that many Owl-related management considerations existed prior to the critical habitat designation, leading it to conclude that additional special management considerations are unlikely to arise as a result of the designation of Owl critical habitat. Additionally, Plaintiff objects to the Service's reliance on past consultation activities as a predictor of the likelihood of future special management needs. In advancing these arguments, Plaintiff misses the point. The statutory criteria require only that the Service determine whether the PCEs *may* require special management considerations. Regardless of whether this renders the statutory clause

---

[7]Plaintiff's argument regarding ESA Section 4(b)(2), advanced in both its Motion and Reply, warrants little discussion. There is no inconsistency between the Section 4(b)(2) exclusions and the present findings. The language quoted by Plaintiff in its brief refers exclusively to the 157 Wildland Urban Interface ("WUI") project areas and the Penasco WUI project area which were "excluded for human health and safety concerns and for the purpose of future fuel reductions." 69 Fed. Reg. at 53,220. This does not clearly support "the assertion that existing management protections are adequate." (Pl.'s Reply at 11.) Rather, it demonstrates a careful balancing between the management protections offered by critical habitat designation, and the unique risks to the public posed by designation in sensitive WUI areas. Plaintiff's contention that existing protections are adequate for all 8.6 million acres based upon the Service's treatment of the WUIs is factually unsupported and unpersuasive.

"superfluous," as Plaintiff contends, it is nevertheless all that the ESA requires. The Service was well within its discretion to look to past activities to determine the likelihood of future events. Furthermore, even if the Service found a decreased need for future Section 7 consultations, this does not detract from the ultimate conclusion that the PCEs *may* need special management considerations or protection. The Court rejects Plaintiff's arguments and finds that the Service acted properly in satisfying the relatively minor legal hurdle imposed by this section of the statute.[8]

F. Economic Impacts

The ESA instructs the Service to designate critical habitat only "after taking into consideration the economic impact . . . of specifying any particular area as critical habitat." 16 U.S.C. § 1533(b)(2). When using this and other relevant data to inform its decision, the Service has wide discretion in determining whether to exclude particular areas. To this effect, the ESA provides that the Service "may exclude any area from critical habitat if [it] determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat."

---

[8]Both Plaintiff's Motion and Reply contain sections pertaining exclusively to the Service's alleged failure to use the best scientific data available. (*See* Pl.'s Mot. at 19; Pl.'s Reply at 12-13.) The Court has already addressed and rejected these contentions in this Order.

Id. This discretion is limited only to the extent that the Service may not exclude areas from a designation if it determines that "failure to designate such area as critical habitat will result in the extinction of the species." *Id.*

Plaintiff contends that the Service has violated the rule set forth in *New Mexico Cattle Growers Association v. United States Fish and Wildlife Service*, 248 F.3d 1277 (10th Cir. 2001), which requires that coextensive economic impacts—i.e., those impacts that result from both listing and critical habitat designation—be considered during the critical habitat designation process. In response, the Service argues that the Ninth Circuit's decision in *Gifford Pinchot*, which invalidated the Service's regulatory definition of adverse modification, seriously calls into question the continuing validity of the Tenth Circuit's logic. In its brief, however, the Service has not chosen to squarely confront the Tenth Circuit's reasoning. Instead, the Service tip-toes around the issue claiming that it has complied with the Tenth Circuit's commands while simultaneously using *Gifford Pinchot*, and other subsequent case law, to seriously undermine *New Mexico Cattle Growers'* holding. For instance, the Service argues that "[i]n light of this altered regulatory scheme, *New Mexico Cattle Growers* has new import." By "new import," the Service seems to be arguing that the Tenth Circuit's decision can be molded around the subsequent rulings while leaving it partially intact. While the Service may find it easier to euphemize its attack on the Tenth

Circuit's logic, this Court sees little sense in doing so. Plaintiff has premised its entire argument on the reasoning used in *New Mexico Cattle Growers*, thus, the continuing validity of that opinion is properly considered by this Court.

New Mexico Cattle Growers involved a challenge to the economic analysis used in the critical habitat designation for the southwestern willow flycatcher. 248 F.3d at 1279-80. During the economic analysis stage, the Service considered only those costs exclusively attributable to the flycatcher's critical habitat designation. *Id.* at 1280. Any economic impacts that were also attributable to the listing of the flycatcher were excluded. *Id.* This approach, known as the baseline approach, only considers those economic impacts that would not have occurred *but for* the critical habitat designation. *Id.* The competing approach, and the one adopted by the Tenth Circuit, "take[s] into account all of the economic impact[s] of the [critical habitat designation], regardless of whether those impacts are caused co-extensively by any other agency action (such as listing) and even if those impacts would remain in the absence of the [designation]." *Id.* at 1283.

The underlying cause of this dispute was the Service's well entrenched policy of functional equivalence which, through regulatory definitions first promulgated in 1986, equated the jeopardy standard (relevant to listing) with the adverse modification standard (relevant to critical habitat designation). *See* 50 C.F.R. § 402.02; *Cape Hatteras*, 344 F. Supp. 2d at

127 ("Functional equivalence is the theory that the designation of critical habitat serves a minimal additional function separate from the listing"). Section 7 of the ESA requires consultation with the Service for any action taken by a federal agency that is "likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species." 16 U.S.C. § 1536(a)(2). Under the 1986 regulations, the Section 7 jeopardy standard is triggered by "an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species." 50 C.F.R. § 402.02. Similarly, Section 7 consultation is required when a proposed action will potentially cause "'[d]estruction or adverse modification'" to critical habitat which "means a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species." *Id.*, *invalidated by Gifford Pinchot*, 378 F.3d 1059; *Sierra Club v. U.S. Fish & Wildlife Serv.*, 245 F.3d 434, 441-43 (5th Cir. 2001). As is evident from the regulatory language, to trigger either jeopardy or adverse modification consultation, a proposed action must affect both "survival *and* recovery." *Id.* (emphasis added).

The result of functional equivalence was that critical habitat designations afforded identical statutory protections to occupied critical habitat as did the protections incident to listing. Thus, if an action was sufficient to trigger a Section 7 consultation under

adverse modification, then it also warranted Section 7 consultation pursuant to the jeopardy standard. Consequently, where the Service designated critical occupied habitat for a species, the prevailing opinion in the Service was that there was no economic impact from the critical habitat designation because any Section 7 consultation—responsible for substantial economic costs associated with listing and critical habitat designation—was required regardless of whether critical habitat had been designated. Functional equivalence meant little or no additional protection for the listed species and contributed to "the FWS's long held policy position that [critical habitat designations] are unhelpful, duplicative, and unnecessary." *N.M. Cattle Growers*, 248 F.3d at 1283.

Faced with the Service's policy of using the baseline approach, the Tenth Circuit attempted to reconcile the statutory command that economic effects be considered, with the practical effect of the Service's interpretation, which commonly resulted in a finding that no economic impacts existed beyond those imposed by listing. *Id.* at 1285. The court recognized that 50 C.F.R. § 402.02's "definition of the jeopardy standard as fully encompassing the adverse modification standard renders any purported economic analysis done utilizing the baseline approach virtually meaningless." *Id.* The legality of the regulation was not before the court, and, therefore, it felt "compelled by the canons of statutory interpretation to give some effect to the congressional directive that economic impacts be considered at the time of critical

habitat designation." *Id.* Thus, the Tenth Circuit concluded that "Congress intended that the FWS conduct a full analysis of all of the economic impacts of a critical habitat designation, regardless of whether those impacts are attributable co-extensively to other causes," and it invalidated the baseline approach as inconsistent with the ESA. *Id.*

Subsequent to the *New Mexico Cattle Growers* decision, the Ninth Circuit invalidated 50 C.F.R. § 402.02's definition of "destruction and adverse modification," as inconsistent with the recovery goal of the ESA. *Gifford Pinchot*, 378 F.3d at 1069-70. The Ninth Circuit found that the regulatory language requiring "appreciable diminish[ment] [of] the value of critical habitat for both the survival and recovery of a listed species" violated "Congress's express command" that the Service consider "the recovery goal of critical habitat." *Id.* To illustrate its point, the court wrote that "[t]he FWS could authorize the complete elimination of critical habitat necessary only for recovery, and so long as the smaller amount of critical habitat necessary for survival is not appreciably diminished, then no 'destruction or adverse modification,' as defined by the regulation, has taken place. This cannot be right." *Id.* The regulation ran afoul of the ESA primarily for use of the phrase "survival and recovery." By simply replacing the "and" with an "or," the recovery goal of the ESA can be met and any future action that "appreciably diminishes" recovery—regardless of any impact on survival—will necessitate Section 7 consultation. *Id.* at 1070.

As a result of *Gifford Pinchot*, the problem that the Tenth Circuit confronted—the functional equivalence of the jeopardy standard and the adverse modification standard—was eliminated. Reflecting on the Tenth Circuit's reasoning, the *Cape Hatteras* court wrote, "[a]pparently hamstrung by its inability to consider the validity of 50 C.F.R. § 402.02, the Tenth Circuit found another way to require the Service to perform a more rigorous economic analysis. This is an instance of a hard case making bad law." 344 F. Supp. 2d at 130. This Court agrees. With the revitalized definition of "adverse modification," the Service must consider recovery when consulting on critical habitat, distinguishing those consultations initiated pursuant to the jeopardy standard. Accordingly, additional economic impacts will be associated with Section 7 consultations concerning critical habitat, and the two can no longer be considered functionally equivalent.

With the *New Mexico Cattle Growers's* primary rationale undermined, the Court examines whether the Tenth Circuit's decision to embrace the coextensive approach and reject the baseline approach comports with the ESA. Having done so, this Court is unpersuaded by the court's analysis in *New Mexico Cattle Growers* and instead elects to take a different approach.[9] In following this path, the Court is not

---

[9]This approach is not, as Plaintiff suggests, inconsistent with the Court's Order in *National Association of Home Builders v. Norton*, No. 00-CV-903, 2001 WL 1876349 (D. Ariz. Sept. 21,

(Continued on following page)

alone. *See Cape Hatteras*, 344 F. Supp. 2d at 129-30 (declining to follow the Tenth Circuit in its rejection of the baseline approach); *Ctr. for Biological Diversity v. Bureau of Land Mgmt.*, 422 F. Supp. 2d 1115, 1152 (N.D. Cal. 2006) (agreeing with Cape Hatteras's holding that "the baseline approach was both consistent with the language and purpose of the ESA and that it was a reasonable method for assessing the actual costs of a particular critical habitat designation").

To understand why the coextensive approach is inconsistent with the ESA, it is necessary to step back and view Congress's broader purpose in incorporating economic considerations into the critical habitat designation process. To begin with, examination of economic impacts is not permitted in the context of listing decisions. 16 U.S.C. § 1533(b)(1)(A) (requiring that listing decisions be based "solely on the basis of the best scientific and commercial data available."). Section 1533(b)(2) deals exclusively with critical habitat designation and its command to consider

---

2001). (*See* Pl.'s Mot. at 23.) Nowhere in that Order does the Court state that it is remanding the economic analysis for inconsistencies with *New Mexico Cattle Growers*. Rather, it merely indicates that the "Defendants d[id] not contest the merits of [the] Plaintiffs' claim that the economic analysis was improper" and, therefore, the Court granted the defendants' Motion for Partial Voluntary Remand because the "Court believe[d] that broader reconsideration of the critical habitat designation [wa]s necessary." *Id.* at *2. Plaintiff's representation that this Court held otherwise is inconsistent with the language of that Order.

economic impacts is similarly constrained. Thus, to determine the economic impacts of a critical habitat designation, the Service must examine those impacts solely attributable to that decision. As stated by the D.C. District Court, "[t]o find the true cost of a designation, the world with the designation must be compared to the world without it." *Cape Hatteras*, 344 F. Supp. 2d at 130. The economic impact created by a critical habitat designation is naturally the mathematical difference between those two worlds. Where a coextensive approach is taken, the Service goes beyond the command of the ESA by examining impacts that exist independent of the critical habitat designation. This only inhibits the resolution of the ultimate question—whether economic impacts suggest that exclusion of certain areas outweighs the benefits of inclusion—and confuses the real costs of making the designation. Additionally, this Court agrees that the inclusion of coextensive costs implicitly violates the ESA's disallowance of consideration of economic factors at the time of listing. Consideration of coextensive impacts simply amounts to a backhanded method of recognizing costs which could not legally be examined during listing. Finally, an expansive interpretation of "economic impacts" is contradictory to the overall purpose of the ESA, which speaks only to conservation, without regard to costs or other economic considerations. 16 U.S.C. § 1531(b).

In this case, to comply with the strictures of the ESA, the Service contracted with Industrial Economics, which prepared a report detailing the economic

impacts of the proposed designation of Owl critical habitat. The Service contends that it considered coextensive impacts in the economic analysis but opted not to weigh those impacts when designating critical habitat for the Owl. According to the Service, it "did not weigh the co-extensive impacts of designating critical habitat for the Mexican spotted owl" in step two of the § 1533(b)(2) analysis. (Defs.' Reply at 4.) The baseline approach adopted by this Court does not merely require the Service to abstain from consideration of coextensive impacts in the second part of the § 1533(b)(2) requirements. Rather, more generally, it prohibits consideration of such economic impacts when deciding whether to designate habitat, which applies to all decisions made pursuant to § 1533(b)(2). *Cape Hatteras*, 344 F. Supp. 2d at 130 ("The Service, however, must not allow the costs below the baseline to influence its decision to designate or not designate areas as critical habitat. That would be inconsistent with the ESA's prohibition on considering economic impacts during the species listing process."). However, using the baseline method, the Service is not prohibited from considering costs attributable to listing while studying the economic impacts of critical habitat designation, as such data may be necessary to accurately determine the baseline. *Id.* Put plainly, the Service may not rely on economic impacts from below the baseline when either designating critical habitat or weighing exclusions from habitat, yet it may assess such information to facilitate informed decision making during those processes. *See Id.*; *Ctr. for Biological Diversity*, 422 F. Supp. 2d at 1153. While the

Service did consider coextensive impacts in the economic impacts analysis, that information was only used to establish the baseline. There is no indication that any improper economic considerations were factored into either the designation decision or the decision to exclude areas from the proposed Owl critical habitat.

Plaintiff advances three arguments challenging the Service's method for assessing economic impacts: (1) that the Service "failed to assess the designation's coextensive impacts"; (2) that it "failed to assess the impact of the designation in combination with the existing regulatory environment"; and (3) that it "failed to consider the economic effects of erroneously designating critical habitat." (Pl.'s Mot. at 21.) Inextricably enmeshed in Plaintiff's first argument is its absolute reliance on *New Mexico Cattle Growers* to support its theory that the Service failed to consider coextensive impacts. In light of the fact that the Court has chosen not to follow the Tenth Circuit's reasoning, and, conversely, has determined that coextensive economic impacts may not be considered, Plaintiff's argument fails. Next, Plaintiff analogizes the ESA with the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321, *et seq.*, and attempts to graft NEPA's cumulative impacts analysis into the context of critical habitat designation. To accept Plaintiff's argument, this Court would have to fashion an entirely new requirement, unsupported by any ESA-related precedent, simply based upon what Plaintiff believes to be sound environmental policy.

The Court declines to do so. Finally, Plaintiff posits that the Service erred by failing to account for the economic costs of "erroneously designating critical habitat." For this argument to succeed, the Court must first determine that Owl critical habitat was erroneously designated. As detailed in this Order, all Owl critical habitat was designated in accordance with the requirements of the ESA, thus, Plaintiff's third argument fails.

IT IS ORDERED denying Plaintiff Arizona Cattle Growers' Association's Motion for Summary Judgment (Doc. 37).

IT IS FURTHER ORDERED granting Defendants Dirk Kempthorne, et al.'s Cross Motion for Summary Judgment (Doc. 44), and Intervenor-Defendant Center for Biological Diversity's Motion for Summary Judgment (Doc. 45).

IT IS FURTHER ORDERED that the Clerk of the District Court enter judgment in favor of Defendants.

DATED this 1st day of February, 2008.

/s/ Susan R. Bolton
Susan R. Bolton
United States District Judge

[SEAL]

Federal Register

**Tuesday,
August 31, 2004**

Part III

Department of the Interior

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for the Mexican Spotted Owl; Final Rule

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018-AG29

Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for the Mexican Spotted Owl

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), designate critical habitat under the Endangered Species Act of 1973, as amended (Act), for the Mexican spotted owl (*Strix occidentalis lucida*) (owl). The owl inhabits canyon and forest habitats across a

range that extends from southern Utah and Colorado, through Arizona, New Mexico, and west Texas, to the mountains of central Mexico. We designate approximately 3.5 million hectares (ha) (8.6 million acres (ac)) of critical habitat in Arizona, Colorado, New Mexico, and Utah, on Federal lands. Section 7 of the Act requires Federal agencies to ensure that actions they authorize, fund, or carry out are not likely to destroy or adversely modify designated critical habitat. As required by section 4 of the Act, we considered economic and other relevant impacts prior to making a final decision on what areas to designate as critical habitat.

DATES: This final rule is effective September 30, 2004.

ADDRESSES: The complete supporting record for this rule is on file at the New Mexico Ecological Services Field Office, 2105 Osuna Road NE, Albuquerque, New Mexico 87113. You may view the complete file for this rule, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT:

Susan MacMullin, New Mexico Ecological Services Field Office, at the above address; telephone 505/346-2525, facsimile 505/346-2542.

SUPPLEMENTARY INFORMATION:

Designation of Critical Habitat Provides Little Additional Protection to Species

In 30 years of implementing the Act, the Service has found that the designation of statutory critical habitat provides little additional protection to most listed species, while consuming significant amounts of available conservation resources. Additionally, we have also found that comparable conservation can be achieved by implementation of laws and regulations obviating the need for critical habitat. The Service's present system for designating critical habitat has evolved since its original statutory prescription into a process that provides little real conservation benefit, is driven by litigation and the courts rather than biology, limits our ability to fully evaluate the science involved, consumes enormous agency resources, and imposes huge social and economic costs. The Service believes that additional agency discretion would allow our focus to return to those actions that provide the greatest benefit to the species most in need of protection.

Role of Critical Habitat in Actual Practice of Administering and Implementing the Act

While attention to and protection of habitat is paramount to successful conservation actions, we have consistently found that, in most circumstances, the designation of critical habitat is of little additional value for most listed species, yet it consumes large

amounts of conservation resources. Sidle (1987) stated, "Because the Act can protect species with and without critical habitat designation, critical habitat designation may be redundant to the other consultation requirements of section 7." Currently, only 36 percent (445 species) of the 1,244 listed species in the U.S. under the jurisdiction of the Service have designated critical habitat. We address the habitat needs of all 1,244 listed species through conservation mechanisms such as listing, section 7 consultations, the section 4 recovery planning process, the section 9 protective prohibitions of unauthorized take, section 6 funding to the States, and the section 10 incidental take permit process. The Service believes it is these measures that may make the difference between extinction and survival for many species.

We note, however, that a recent 9th Circuit judicial opinion, *Gifford Pinchot Task Force* v. *United States Fish and Wildlife Service,* has invalidated the Service's regulation defining destruction or adverse modification of critical habitat. We are currently reviewing the decision to determine what effect it may have on the outcome of consultations pursuant to Section 7 of the Act.

Procedural and Resource Difficulties in Designating Critical Habitat

We have been overwhelmed with lawsuits regarding designation of critical habitat, and we face a growing number of lawsuits challenging critical

habitat determinations once they are made. These lawsuits have subjected the Service to an ever-increasing series of court orders and court-approved settlement agreements, compliance with which now consumes nearly the entire listing program budget. This leaves the Service with little ability to prioritize its activities to direct scarce listing resources to the listing program actions with the most biologically urgent species conservation needs.

The consequence of the critical habitat litigation activity is that limited listing funds are used to defend active lawsuits, to respond to Notices of Intent (NOIs) to sue relative to critical habitat, and to comply with the growing number of adverse court orders. As a result, listing petition responses, the Service's own proposals to list critically imperiled species and final listing determinations on existing proposals are all significantly delayed.

The accelerated schedules of court ordered designations have left the Service with almost no ability to provide for adequate public participation or to ensure a defect-free rulemaking process before making decisions on listing and critical habitat proposals due to the risks associated with noncompliance with judicially-imposed deadlines. This in turn fosters a second round of litigation in which those who fear adverse impacts from critical habitat designations challenge those designations. The cycle of litigation appears endless, is very expensive, and in the final analysis provides relatively little additional protection to listed species.

The costs resulting from the designation include legal costs, the cost of preparation and publication of the designation, the analysis of the economic effects and the cost of requesting and responding to public comment, and in some cases the costs of compliance with the National Environmental Policy Act (NEPA), all are part of the cost of critical habitat designation. None of these costs result in any benefit to the species that is not already afforded by the protections of the Act enumerated earlier, and they directly reduce the funds available for direct and tangible conservation actions.

Background

It is our intent to discuss only those topics directly relevant to the designation of critical habitat in this final rule. For more information on the owl, refer to the final listing rule of March 16, 1993 (58 FR 14248), the two previous final critical habitat rules of June 6, 1995 (60 FR 29913) and February 1, 2001 (66 FR 8530), and the Recovery Plan for the Mexican Spotted Owl (Recovery Plan) (Service 1995). However, some of this information is discussed in our analyses below, such as the description of the primary constituent elements.

Two primary reasons were cited for listing the owl as threatened in 1993: (1) Historical alteration of its habitat as the result of timber management practices, specifically the use of even-aged silviculture, and the threat of these practices continuing; and

(2) the danger of catastrophic wildfire. The Recovery Plan for the owl outlines management actions that guide land management agencies in efforts to remove recognized threats and recover the owl. This critical habitat designation is based on recovery needs and guidelines identified in the Recovery Plan.

The Recovery Plan provides for three levels of habitat management: protected areas, restricted areas, and other forest and woodland types. We define protected areas to include all known owl sites (Protected Activity Centers [PACs]), and all areas in mixed-conifer or pine-oak types with slopes greater than 40 percent where timber harvest has not occurred in 20 years, and all legally and administratively reserved lands, such as Wilderness Areas or Research Natural Areas. Protected areas can also include steep-walled canyon habitat. Owl PACs are delineated around known owl sites. PACs include a minimum of 600 acres (ac) (243 hectares [ha]) that includes the best nesting and roosting (*i.e.*, resting) habitat in the area. A PAC contains the nest site, a roost grove commonly used during the breeding season in the absence of a verified nest site, or the best nesting/roosting habitat if both nesting and roosting information are lacking and the most proximal and highly used foraging areas (Service 1995). Areas outside of PACs, including restricted areas, provide additional habitat appropriate for foraging. Restricted areas include mixed-conifer forest, pine-oak forest, and riparian areas where potential nesting and roosting habitat exist. Canyons may also contain

restricted areas. The Recovery Plan provides less specific management guidelines for these areas. The Recovery Plan does not provide owl-specific guidelines for "other forest and woodland habitat."

The owl occupies a broad geographical area, but does not occur uniformly throughout its range (Service 1995). Instead, the owl occurs in disjunct localities that correspond to isolated mountain systems and canyons. The owl is frequently associated with mature mixed-conifer, pine-oak, and riparian forests (Ganey *et al.* 1988, Skaggs and Raitt 1988, Ganey and Balda 1989, Gutierrez and Rinkevich 1991, Willey 1993, Fletcher and Hollis 1994, Ganey and Dick 1995, Gutierrez *et al.* 1995, Seamans and Gutierrez, 1995, and Ward *et al.* 1995). Mature mixed-conifer forests are mostly composed of Douglas-fir (*Psuedotsuga menziesii*), white fir (*Abies concolor*), limber pine (*Pinus flexilis*) or blue spruce (*Picea pungens*). Pine-oak forests are mostly composed of ponderosa pine (*Pinus ponderosa*) and Gambel oak (*Quercus gambellii*). Riparian forests are dominated by various species of broadleaved deciduous trees and shrubs (Service 1995). These riparian forests can be important linkages between otherwise isolated subpopulations of owls (Service 1995).

Owls are also found in canyon habitat dominated by vertical-walled rocky cliffs within complex watersheds including tributary side canyons. Rock walls include caves, ledges, and other areas that provide protected nest and roost sites (Gutierrez and Rinkevich 1991). Canyon habitat may include small

isolated patches or stringers of forested vegetation including stands of mixed-conifer, ponderosa pine, pine-oak, pinyon-juniper, and/or riparian vegetation in which owls regularly roost and forage. Owls are usually found in areas with some type of water source (*i.e.*, perennial stream, creeks, and springs, ephemeral water, small pools from runoff, reservoir emissions) (Gutierrez and Rinkevich 1991). Even small sources of water such as small pools or puddles create humid conditions (Geiger 1965 *in* Gutierrez and Rinkevich 1991).

Owls are highly selective for roosting and nesting habitat, but forage in a wider array of habitats (Service 1995, Ganey and Balda 1994, and Seamans and Gutierrez 1995). Roosting and nesting habitat exhibit certain identifiable features, including large trees (those with a trunk diameter of 12 inches (in) (30.5 centimeters (cm)) or more (*i.e.* high tree basal area)), uneven-aged tree stands, multi-storied canopy, a tree canopy creating shade over 40 percent or more of the ground (*i.e.* moderate to high canopy closure), and decadence in the form of downed logs and snags (standing dead trees) (Ganey and Balda 1989; Ganey and Dick 1995; Grubb *et al.* 1997; Tarango *et al.* 1997; Peery *et al.* 1999; Ganey *et al.* 2000; and Geo-Marine 2004). Canopy closure is typically greater than 40 percent (Ganey and Balda 1989; Fletcher 1990; Zwank *et al.* 1994; Grubb *et al.* 1997; Tanrango *et al.* 1997; Ganey *et al.* 1998; Young *et al.* 1998; Ganey *et al.* 2000; and Geo-Marine 2004).

All nests reported by Zwank *et al.* (1994), Seamans and Gutierrez (1995), and Geo-Marine (2004) were in either mixed-conifer or Douglas-fir habitat. Roost and nest trees were the oldest and largest within tree stands (Ganey and Balda 1989, 1994, and, Seamans and Gutierrez 1995). Owls use areas that contain a number of large trees of different types including mixed-conifer and pine-oak with smaller trees under the canopy of the larger trees. These types of areas provide vertical structure and high plant species richness that are important to owls. (FO) (Ganey and Dick 1995; Seamans and Gutierrez 1995; and Ganey *et al.* 2003). Tarango *et al.* (1994) and Ganey *et al.* (2000) recorded seven or more tree species at roost sites. Therefore, we believe that mixed-conifer dominated by Douglas-fir, pine-oak, and riparian forests with high tree diversity are important to the owl.

Juvenile owls disperse in September and October, into a variety of habitats ranging from high-elevation forests to pinyon-juniper woodlands and riparian areas surrounded by desert grasslands (Gutierrez *et al.* 1995; Arsenault *et al.* 1997; and Willey and C. van Riper 2000). Observations of long-distance dispersal by juveniles provide evidence that they use widely spaced islands of suitable habitat which are connected at lower elevations by pinyon-juniper and riparian forests. As a result of these movement patterns, isolated populations may have genetic significance to the owl's conservation (Keitt *et al.* 1995; Guteirrez and Harrison 1996; Seamans *et al.* 1999; and Willey

and C[.] van Riper 2000). Owls have been observed moving across open low desert landscapes between islands of suitable breeding habitat (Arsenault *et al.* 1997; Ganey *et al.* 1998; and Willey 1998). Owl movements were also observed between "sky island" mountain ranges in New Mexico (Gutierrez *et al.* 1996). Therefore, contiguous stands or islands of suitable mixed-conifer, pine-oak, and riparian forests are important to the owl.

Owl foraging habitat includes a wide variety of forest conditions, canyon bottoms, cliff faces, tops of canyon rims, and riparian areas (Gutierrez and Rinkevich 1991 and Willey 1993). Ganey and Balda (1994) reported that owls foraged more frequently in unlogged forests containing uneven-aged stands of Douglas-fir and white fir, with a strong component of ponderosa pine, than in managed forests. The primary owl prey species are woodrats (*Neotoma* spp.), peromyscid mice (*Peromyscus* spp.), and microtine voles (*Microtus* spp.) (Service 1995; Young *et al.* 1997; Delaney *et al.* 1999; Seamans and Gutierrez 1999). Mexican woodrats (*N. mexicana*) are typically found in areas with considerable shrub or understory tree cover and high log volumes, or rocky outcrops associated with pinyon-juniper woodlands (Sureda and Morrison 1998 and Ward 2001). Sureda and Morrison (1998) and Ward (2001) found deer mice (*P. maniculatus*) to be more abundant and widespread in the 60 to 100 year old stands of mixed-conifer forests. Mexican voles (*M. mexicanus*) are associated with mountain meadows and high herbaceous cover,

primarily grasses; whereas, long-tailed voles (*M. longicaudus*) are found in dry forest habitats with dense herbaceous cover, primarily forbs, many shrubs, and limited tree cover (Ward 2001). High levels of owl reproductive success and production may be due to prey abundance (Delaney *et al.* 1999). Ward and Block (1995) documented an increase in owl production when moderate to high levels of woodrats, peromyscid mice, and voles, were consumed. A diverse prey base is dependant on availability and quality of diverse habitats. Owl prey species need adequate levels of residual plant cover, understory cover, and high log volume. Therefore, a wide variety of forest and vegetative conditions are important to the owl and its prey.

Historic population size estimates and range of the owl are not known; however, present population size and distribution are thought to be similar (Service 1995). Ninety-one percent of known owls existing in the United States between 1990 and 1993 occurred on land administered by the FS, the primary administrator of lands supporting owls (Service 1995). Most owls have been found within the 11 National Forests of Arizona and New Mexico. It is unknown why Colorado and Utah support fewer owls.

In 2002, FS reported 987 PACs in Arizona and New Mexico (FS 2002). Additional surveys are likely to document more owls on FS and other lands. For example, Geo-Marine (2004) reported an additional 26 activity centers not previously designated by the Gila National Forest. Current information suggests

there are 15 PACs in Colorado, 105 PACs in Utah, and 43 PACs on National Park Service (NPS) lands in Arizona, therefore, 1,176 PACs have been identified. Based on this number of owl sites, we believe that the total known owl numbers on Federal lands in southwestern United States range from 1,176 or 2,352, depending on whether one bird or a pair occupies the PAC.

Seamans *et al.* (1999) reported evidence of 10 percent or greater population declines in central Arizona and west-central New Mexico. Both populations experienced lower survival rates in the late 1990s. Gutierrez *et al.* (2003) concluded that with four additional years of data on these same populations, the decline observed by Seamans *et al.* (1999) on the Arizona study area was temporary, whereas the decline in New Mexico appeared to be continuing. Wide population fluctuations may be common for populations of owls (Gutierrez *et al.* 2003).

The final listing rule for the owl stated that the Southwestern Region of the FS managed timber primarily under a shelterwood harvest regime. A shelterwood cut is an even-aged regeneration cutting in which new tree seedlings are established under the partial shade of remnant seed trees. Thus, this harvest method produces even-aged stands rather than the uneven-aged, multi-layered stands most often used by the owl for nesting and roosting. In addition, at the time of the listing, the shelterwood silviculture system called for even-aged conditions in perpetuity. In 1996, the Southwest Region of the FS incorporated

the Mexican Spotted Owl Recovery Plan guidelines as management direction into their Forest Plans. Thus, the management plans for the Southwestern Region of the FS include biological goals consistent with the Recovery Plan for the owl, thereby eliminating one of the primary threats to the owl on FS lands identified in the final listing rule.

Another primary reason cited for listing the owl as threatened in 1993 was the danger of catastrophic wildfire. Bond *et al.* (2002) described short-term effects of wildfires on spotted owls throughout the species' range. The authors reported that relatively large wildfires that burned nest and roost areas appeared to have little short-term (1-year) effect on survival, site fidelity, mate fidelity, and reproductive success of spotted owls, as rates were similar to estimates independent of fire. However, Elliot (1995), MacCracken *et al.* (1996), and Gaines *et al.* (1997) reported in some cases, large stand replacing wildfires appeared to have a negative effect on owls. Jenness (2000) reported low- to moderate-severity fires did not adversely affect owls. Bond *et al.* (2002) hypothesized that spotted owls may withstand the immediate, short-term effects of fire occurring at primarily low to moderate severities within their territory. The USDA Forest Service (FS) reported similar results following the 2002 Lakes Fire in the Jemez Mountains of north-central New Mexico. Thus, prescribed burning and other forest management activities could be an effective tool to reduce fire risk and restore forests to natural conditions with perhaps

short-term impacts to owls. For example, prescribed fire may prove useful in the creation or maintenance of habitat for owls or their prey (Gutierrez *et al.* 2003). Bond *et al.* (2002) cautioned that programmatic prescribed burning in owl territories could not be justified solely on their observations. Manipulative experiments are needed to evaluate effects of fire (or other forest management activities) on owls (Bond *et al.* 2002).

Previous Federal Actions

We published a final rule listing the owl as a threatened species on March 16, 1993 (58 FR 14248). For more information on the previous critical habitat designations and other actions related to the owl, refer to the final rule published in the **Federal Register** on February 1, 2001 (66 FR 8530). The final rule excluded all National Forest Service (FS) lands in Arizona and New Mexico and certain Tribal lands and designated critical habitat on approximately 1.9 million ha (4.6 million ac). On August 27, 2001, the Center for Biological Diversity filed a complaint challenging our decision to exclude these lands from the final designation of critical habitat for the owl.

On January 13, 2003, the United States District Court for the District of Arizona, (*Center for Biological Diversity* v. *Norton,* Civ. No. 01-409 TUC DCB), ruled that our final designation of critical habitat for the owl violated the Act, as well as the Administrative Procedure Act (5 U.S.C. 551 *et seq.*). The Court

ordered us to repropose critical habitat within 3 months and finalize within 6 months from the date of the order. The Court also stated that the current critical habitat designation for the owl (*i.e.*, that promulgated by 66 FR 8530 and codified at 50 CFR 17.95) shall remain in effect and be enforced until such time as we publish a new final designation of critical habitat for the owl. In a subsequent order, on February 18, 2003, the original deadlines were extended to allow until October 13, 2003, to repropose critical habitat for the owl and until April 13, 2004, to publish a new final designation of critical habitat. On October 10, 2003, the Court ruled that it would permit a limited extension and ordered the parties to meet and confer within 15 days of the order to prepare a reasonable timeline for compliance with the January 13, 2003, order. The Court also indicated that a notice reopening the comment period on the July 2000 proposal is appropriate. On October 30, 2003, the parties submitted a Joint Proposed Timeline and Memorandum of Dispute to the Court. On November 12, 2003, the Court adopted our proposed timeline and required us to submit a notice to the **Federal Register** on November 7, 2003, reopening the comment period on the July 21, 2000, proposed designation of critical habitat for the owl. The parties agreed that this notice would solicit comment regarding all of the lands proposed for designation that were not included in the 2001 final designation. The Court's order also required us to submit the final critical habitat designation to the **Federal Register** on August 20, 2004.

On November 18, 2003 (68 FR 65020), we reopened the public comment period on our July 21, 2000, proposed rule to designate critical habitat for the owl (65 FR 45336). The proposal included approximately 5.5 million hectares (ha) (13.5 million acres (ac)) in Arizona, Colorado, New Mexico, and Utah, mostly on Federal lands. On November 12, 2003, the United States District Court for the District of Arizona (*Center for Biological Diversity* v. *Norton,* Civ. No. 01-409 TUC DCB) ordered the Service to submit a final rule for designation of critical habitat for the owl to the **Federal Register** by August 20, 2004. On March 26, 2004, we published a notice of availability of the final draft economic analysis and the final draft environmental assessment and opened a 30-day comment period (69 FR 15777). During this comment period, we held one informational meeting in Las Cruces, New Mexico, to provide an opportunity to the public to ask us questions. We have prepared this designation pursuant to the November 12, 2003, Court order.

We contacted appropriate State and Federal agencies, Tribes, county governments, scientific organizations, and other interested parties and invited them to comment. As noted in the previous designation, we published newspaper notices inviting public comment and announcing the public hearings in newspapers (66 FR 8530). We also held six public hearings on the proposed rule: Sante Fe (August 14, 2000) and Las Cruces (August 15, 2000), New Mexico; Tucson (August 16, 2000) and Flagstaff (August 17, 2000),

Arizona; Colorado Springs, Colorado (August 21, 2000); and Cedar City, Utah (August 23, 2000), and an informational meeting in Las Cruces (April 21, 2004), New Mexico. Transcripts of the hearings are available for inspection (see **ADDRESSES** section).

Summary of Comments and Recommendations

As noted above, on November 18, 2003, we reopened the public comment period on the July 21, 2000, proposed rule. In the following section, we categorize and respond to applicable, substantive comments received during all four of the public comment periods.

We solicited seven independent expert ornithologists who are familiar with this species to peer review the proposed critical habitat designation. However, only two of the peer reviewers submitted comments. Both responding peer reviewers supported the proposal. We also received a total of 27 oral and 859 written comments (the majority of written comments were in the form of printed postcards). Of those oral comments, 10 supported critical habitat designation, 14 were opposed to designation, and 3 provided additional information but did not support or oppose the proposal. Of the written comments, 764 supported critical habitat designation, 65 were opposed to designation, and 30 were neutral but provided information. We reviewed all comments received for substantive issues and new data regarding critical habitat and the owl. We address all comments

received during the comment periods and public hearing testimony in the following summary of issues. Comments of a similar nature are grouped into issues.

Issue 1: Biological Concerns

(1) *Comment:* The wording of the attributes of the primary constituent elements is not consistent with the definitions of forest cover types as described in the Recovery Plan, and there is a high potential for confusion over exactly which areas are included in the proposed designation. Do all of the primary constituent elements have to be present for the area to be considered critical habitat, or just one? The constituent elements described are vague (violating 50 CFR Sec. 424.12(c)) and should include the required greater detail defining what constitutes critical habitat. The boundaries are impossible to identify.

Our Response: As stated in the critical habitat designation section, the critical habitat designation is consistent with the Recovery Plan and includes areas within the mapped boundaries that are protected or restricted habitat and include one or more of the primary constituent elements. Protected habitat is areas where owls are known to occur or are likely to occur. Protected habitat includes: (1) 600 acres around known owl sites within mixed conifer forests or (2) pine-oak forests with slopes greater than 40 percent and where timber harvest has not occurred in the past 20 years. Restricted habitat includes areas

outside of protected habitat which owls utilize for foraging and dispersing. Restricted habitat includes mixed conifer forest, pine-oak forest and riparian habitat types.

We also clarified the definitions and use of the terms protected and restricted habitat for the purposes of identifying critical habitat and the primary constituent elements of critical habitat in this rule (see "Primary Constituent Elements" section below). During the comment periods, we requested, but did not receive, any information regarding refinements to the primary constituent elements. However, given the concern expressed by commenters that the primary constituent elements were vague, we reanalyzed existing information and refined the primary constituent elements. This final rule describes the specific areas and primary constituent elements essential to the conservation of the owl based on the best available information.

We did receive information from a variety of sources to allow further analysis on whether particular critical habitat units, or portions thereof, contained or lacked one or more primary constituent elements. This information allowed us to refine our maps (see "Changes to Proposed Rule" section below). Further, while we welcome and encourage additional studies on the biological requirements of the owl, we believe the best available information has been used in defining the areas and primary constituent elements necessary for the species' conservation. Nevertheless, we recognize that not all of the developed

land areas within the boundaries of the designation will contain the habitat components essential to the conservation of the species. For this reason, some developed lands are excluded by definition (see the "Regulation Promulgation" section below).

Critical habitat units are defined by geographic information system coverages and associated Universal Transverse Mercator (UTM) coordinates. This information can be obtained from our Web site at *http://ifw2es.fws.gov/mso/* or by contacting our New Mexico Ecological Services Field Office (see **ADDRESSES**).

(2) *Comment:* Some areas proposed as critical habitat units contain a considerable amount of land that is not suitable for or occupied by owls, and therefore, the areas should be mapped more accurately. Some commenters also questioned whether 13.5 million acres are needed for owls. Including areas not essential to the owl in designated critical habitat limits management options and diverts scarce resources from meaningful tasks, including efforts which will benefit the recovery of the owl, such as fire abatement projects.

Our Response: All of the areas that are designated as critical habitat contain primary constituent elements and are considered essential for the conservation the species. We clarified the primary constituent element descriptions to assist landowners and managers in identifying areas containing these elements. However, a lack of precise habitat location

data and the massive scope of the designation did not allow us to conduct the fine-scale mapping necessary to physically exclude all of the areas that do not contain primary constituent elements of critical habitat. Nevertheless, we worked with a variety of stakeholders to refine the critical habitat boundaries in many areas (see "Summary of Changes From Proposed Rule" section below). Changes in this final rule that decrease the boundaries of many units are based on additional information received during the public comment period. Critical habitat is defined as those areas within the mapped boundaries. However, as described in the "Section 7 Consultation" section below, consultation would occur when the action agency determines that activities they sponsor, fund, or authorize may affect areas defined as protected or restricted habitat that contain one or more of the primary constituent elements.

(3) *Comment:* Lack of forest management has resulted in successional and structural changes to forests throughout the range of owl. Designation and management of critical habitat will place an additional burden on land management agencies, further inhibiting their ability to prevent or suppress catastrophic wildfire, one of the greatest threats to the forest types this species inhabits. The risk and intensity of wildfire will increase. Therefore, designating critical habitat seems contradictory to the owl's recovery. A prohibition on forest management activities will also reduce the amount of water runoff from the watershed.

Our Response: We concur with the commenter that loss of habitat from catastrophic wildfire is one of the main threats to the owl. Consequently, management actions taken to reduce the risk and potential size of high-severity wildfires are recognzed [sic] as a vital component of owl recovery (Service 1995). The economic analysis concluded that some projects proposed within the wildland urban interface (WUI) may be delayed because of the Recovery Plan recommendation that fuel treatments occur during the nonbreeding season (September 1 to February 28). For this and other reasons, we are excluding from this final designation of critical habitat for the owl lands defined by the 157 WUI projects and the Penasco WUI project area identified by the FS as the highest priority for fuel treatments because they are "at imminent risk of catastrophic wildlife [sic]." These 157 WUI projects were evaluated by us in our programmatic biological opinion and the Penasco WUI project area was evaluated by us under a separate opinion (Service 2001 and Service 2002) (see "Exclusions under Section 4(b)(2) of Act" section). For the areas within the designation that may also be considered for fuel treatment projects, as described in the economic analysis and environmental assessment, critical habitat designation may delay some projects, but has not and is not anticipated to prevent actions that alleviate the risk of wildfire, nor will it have an effect on suppression activities because the Recovery Plan supports and provides guidance on fuel reduction activities. In addition, we also have developed alternative approaches to streamlining section 7

consultation for hazardous fuels treatment projects (Service 2002), including a consideration of the benefits of these activities to the owl and its habitat (Service 2002a).

The maintenance of mature forest attributes in mixed conifer and pine-oak habitat types over a portion of the landscape and in areas that support existing owl territories is important to the recovery of the owl; however, critical habitat designation does not emphasize the creation of these features where they do not currently exist. It also does not preclude the proactive treatments necessary to reduce the risk of catastrophic fire. Clearly, the loss of owl habitat by catastrophic fire is counter to the intended benefits of critical habitat designation.

Section 7 prohibits actions funded, authorized, or carried out by Federal agencies from jeopardizing the continued existence of a listed species or destroying or adversely modifying the listed species' critical habitat. Activities that may result in the destruction or adverse modification of critical habitat may also jeopardize the continued existence of the species. Due to the reliance on guidelines from the Recovery Plan for section 7 consultation standards, it is anticipated that the designation of critical habitat likely will not require any additional restrictions as a result of section 7 consultations, including projects designed to reduce the risk of wildfire (see "Effects of Critical Habitat Designation" section below). Furthermore, we expect that some activities may be considered to be of benefit to owl habitat and, therefore, would not be

expected to adversely modify critical habitat or place an additional burden on land management agencies. Examples of activities that could benefit critical habitat may include some protective measures such as fire suppression, prescribed burning, brush control, snag creation, and certain silvicultural activities such as thinning. We note that fires are a natural part of the fire-adapted ecosystem in which the owl has evolved. The owl Recovery Team and numerous others have recognized the importance of allowing fire to return to southwestern forests, and the policy of widespread fire suppression is well documented as a source of declining forest health.

We agree that many plant communities have undergone successional and structural changes as a result of past and current management practices. These practices include, to varying degrees, the combined effects of long-term and widespread fire suppression, reduction in surface fuels, rates of tree overstory removal and regeneration treatments on cycles shorter than those found in natural disturbance regimes, inadequate control of tree densities responding to fire suppression and tree harvest, and in xeric forest types, decreases in the proportion of the landscape in stands composed of more fire resistant large-diameter trees. We also agree that vegetative structural and landscape changes may require proactive management to restore an appropriate distribution of age classes, control regeneration densities, and reintroduce some measure of natural disturbance processes such as fire events. This may

include prescribed fire and thinning treatments, restoration of the frequency and spatial extent of such disturbances as regeneration treatments, and implementation of prescribed natural fire management plans where feasible. We consider use of such treatments to be compatible with the ecosystem management of habitat mosaics and the best way to reduce the threats of catastrophic wildfire. We will fully support land management agencies in addressing the management of fire to protect and enhance natural resources under their stewardship.

(4) *Comment:* The designation of critical habitat for the owl will conflict with the management objectives of other animal and plant species and ecosystem management. The designation of critical habitat will surely have an impact on many other species of wildlife.

Our Response: Critical habitat management primarily focuses on the maintenance of habitat features in mixed conifer (forest stands with the overstory generally composed of white fir, Douglas fir, ponderosa pine, limber pine, blue spruce, white pine, and quaking aspen) and pine-oak habitat types (forest stands that generally exhibit a ponderosa pine or Chihuahua pine overstory and a Gamble's oak understory) that support owls, and the maintenance of good riparian forests (Service 1995). It does not require the creation of these features where they do not currently exist. The methods conserve the desired measure of diversity vary, but are designed to maintain existing mature/old forest characteristics while

allowing some degree of timber harvest and management of other objectives such as tree density control and prescribed fire. Older forests provide favorable environments for diverse assemblages of plants and animals. The maintenance of the primary constituent elements of critical habitat will provide and enhance biological diversity. Therefore, critical habitat management does not preclude managing for other objectives or other species. In addition, critical habitat does not preclude adaptive management or the incorporation of new information on the interaction between natural disturbance events and forest ecology. We continue to support sound ecosystem management and the maintenance of biodiversity.

As outlined in our final environmental assessment, in areas that contain owl habitat, native fish, wildlife, and plants may directly or indirectly benefit as a result of ecosystem protections provided through the conservation of the owl and the associated requirements of section 7 of the Act.

(5) *Comment:* How does the critical habitat designation correspond to the reasons why the owl is listed?

Our Response: The two primary reasons for listing the owl as threatened were historical alteration of its habitat as the result of timber management practices, and the threat of these practices continuing; and the risk of catastrophic wildfire (58 FR 14248). The Recovery Plan outlines management actions that land managers should undertake to

remove recognized threats and recover the owl. This critical habitat designation is consistent with the Recovery Plan's goals, and therefore contributes to the reduction in the threats that necessitated listing the owl.

(6) *Comment:* Your list of constituent elements and condemnation of even-aged silviculture suggests that the constituent elements must occur on every acre of the 13.5 million acres. There appears to be an attempt to idealize and maximize owl populations over a very large area. The owl is flexible, adaptable, and capable of doing well and surviving with less.

Our Response: The determination of primary constituent elements and designation of critical habitat is consistent with the purposes of critical habitat provisions in the Act and the Recovery Plan's goals. In the Recovery Plan, we outline steps necessary to remove the owl from the list of threatened species. The Recovery Plan recognizes that owls nest, roost, forage, and disperse in a diverse array of biotic communities. The Recovery Plan provides realistic goals for the recovery of the species (including a significant increase in owl population numbers), and these goals are flexible in that they provide local land managers discretion to make site-specific decisions, including silviculture management. Nevertheless, critical habitat does not create the requirement to create primary constituent elements outside of where they currently occur.

(7) *Comment:* Designation of critical habitat is not needed to conserve the owl, because there is information that shows the spotted owl is doing very well; a year ago you were in the process of delisting the spotted owl, because it was doing well. What happened to that activity?

Our Response: We never proposed nor began the process of delisting the owl. In fact, some populations of owl may be declining (Seamans *et al.* 1999). Guitierrez (2003) found that the owl population studied by Seamans *et al.* (1999) in Arizona may be stable, but the New Mexico population in the same study was likely declining. On September 23, 1993, and April 1, 1994, we announced separate 90-day findings on two petitions to remove the owl from the list of endangered and threatened wildlife (FR 58 49467 and FR 59 15361, respectively). We found that the petitions did not present substantial scientific or commercial information indicating that delisting the owl was warranted. However, should sufficient information become available to us that warrants a status review or a change in status, we will undertake such efforts as appropriate.

(8) *Comment:* The designation of critical habitat will not provide any additional conservation benefit to the owl, which is already protected under section 7. Several commenters also questioned whether the designation of critical habitat will improve conservation of the owl because the current Recovery Plan is being implemented.

Our Response: We agree that designation of critical habitat provides little to no additional regulatory benefit in areas already managed compatibly with owl recovery (see "Designation of Critical Habitat Provides Little Additional Protection to Species"). The Recovery Plan for the owl was finalized in December 1995 (Service 1995). This plan recommends recovery goals, strategies for varying levels of habitat protection, population and habitat monitoring, a research program to better understand the biology of the owl, and implementation procedures. In addition, we have continued working with the owl Recovery Team since the plan was finalized. We believe this critical habitat designation is consistent with the Recovery Plan and recommendations of those team members. Nevertheless, many land managers are currently following the Recovery Plan that provides guidance for conserving habitat of the owl. Thus, the designation may provide little regulatory benefit to the species.

(9) *Comment:* One commenter stated that not enough information is known about the total habitat requirements of the species to define critical habitat. Further study of population trends, habitat requirements, and comprehensive monitoring are necessary to promote long-term conservation and recovery. Other commenters suggested that the designation is based upon flawed and outdated information, and that we should have relied upon recent models that predict owl habitat.

Our Response: Section 4(b) of the Act states "The Secretary shall make determinations [of critical habitat] * * * solely on the basis of the best scientific and commercial data available * * * [.]" We considered the best scientific information available to us at this time, as required by the Act. This designation is based upon a considerable body of information on the biology of the owl, as well as effects from land-use practices on their continued existence. Based upon newly available information, coordination with land managers and stakeholders, and input received during the public comment period, we have made revisions to the areas designated as critical habitat, which are reflected in this final rule (see "Summary of Changes From the Proposed Rule" section). We are not aware of any reliable information that is currently available to us that was not considered in this designation process. This final determination constitutes our best assessment of areas needed for the conservation of the species. Much remains to be learned about this species; should credible, new information become available which contradicts this designation, we will reevaluate our analysis and, if appropriate, propose to modify this critical habitat designation, depending on available funding and staffing. We must make this determination on the basis of the information available at this time, and we may not delay our decision until more information about the species and its habitat are available (*Southwest Center for Biological Diversity* v. *Babbitt,* 215 F.3d 58 (D.C. Cir. 2000)). Finally, we are also in the process of revising the current Recovery Plan. The Recovery

Team anticipates that the revised Recovery Plan will be available during late 2005 (S. Rinkevich, Service, pers. comm., 2004). The revision will likely include much of the same guidance as the current Recovery Plan, but will also include recent information to further assist land managers in reducing the threats to the owl.

(10) *Comment:* In Colorado, the owl has been found only in canyon habitats and on rocky outcrops. We suggest that narrow, steep-walled canyons (greater than 40 percent slopes) or prominent rocky outcrops less than 9,500 feet (2,896 meters) in elevation be considered constituent elements for critical habitat in Colorado. Much of the area currently proposed as critical habitat does not contain such habitats and does not contribute to the conservation of the species. Pinyon-juniper habitat in Colorado is used by owls for roosting, foraging, and wintering. The final designation should include these areas, especially on Fort Carson.

Our Response: Designated critical habitat for the owl in Colorado already encompasses the commenter's suggestion. For example, protected habitat includes areas with slopes greater than 40 percent. Additionally, one of the primary constituent elements for canyon habitat includes canyon walls containing crevices, ledges, or caves. The critical habitat in Colorado is essential for the conservation of the species because it provides landscape connectivity within and among critical habitat units.

The designation only includes lands within protected or restricted areas and includes mixed conifer, pine-oak, and riparian habitat types as they are defined in the Recovery Plan (Service 1995). As noted above, we could not enlarge the final designation to add pinyon-juniper habitat that was not included in the proposed rule. Pinyon-juniper habitat falls within other forest and woodland types in the Recovery Plan (Service 1995). It should be noted that the Recovery Plan does not provide specific management guidelines for other forest and woodland types. However, the lack of specific guidelines does not imply that we regard these types as unimportant for the recovery of the owl. These areas would continue to be subject to section 7 consultation requirements if they are used by owls and a project has the potential to affect the species or its habitat.

(11) *Comment:* The "Utah" owls are a subspecies with unique genetic variations that may require different habitat and other life requirements.

Our Response: The Service recognizes that owls use both canyon and forest habitats. This is why the primary constituent elements are provided for both forests and canyons. However, we are not aware of any information in the scientific literature or provided by biologists researching the owl to indicate that owls in Utah are genetically different from *Strix occidentalis lucida*.

(12) *Comment:* The Carson National Forest contains high-elevation areas within proposed critical

habitat that are not occupied by the owl. These areas should be refined or excluded from the designation.

Our Response: Based upon the most recent PAC information, we have refined the final designation to exclude all of the proposed critical habitat units that are not essential to the conservation of the species. This included a large portion of the Carson National Forest where owl surveys have been conducted through 400,000 acres (161,874 hectares) since 1988 and have yet to find an owl outside of the Jicarilla Ranger District (FS 2004). We are designating two critical habitat units on the Jicarilla Ranger District based upon public comments and the best scientific and commercial information. Nevertheless, these two critical habitat units contain WUI project areas that are not included in the designation, because these project areas are specifically excluded due to human health and safety concerns from the imminent risk of catastrophic wildfire (see "Exclusions Under Section 4(b)(2)" and "Regulation Promulgation" sections).

This designation of critical habitat does not mean that habitat outside the designation is unimportant or may not be required for recovery. For example, we recognize that the Carson National Forest is part of the southern Rocky Mountains, New Mexico Recovery Unit (RU) and contains protected and restricted habitat. Although many hypotheses have been suggested as to why the majority of this National Forest is apparently unoccupied (*e.g.*, high elevation, climatic conditions, etc.), we are unable to draw firm conclusions. A great deal of effort has been expended

by owl biologists to survey potential habitat in this area and have only documented owls on the Jicarilla Ranger District. Other historic owl records have been difficult to verify, and are currently considered by the FS and others to be "questionable" (FS 2004). The most serious threat to the owl in this portion of its range is wildfire, which would be unaffected by a designation of critical habitat (Service 1995). Consequently, we cannot conclude that, outside of the two units we are designating as critical habitat, the remaining proposed critical habitat on the Carson is essential to the conservation of the owl because we have not found PACs in these areas.

Areas outside the critical habitat designation will continue to be subject to conservation actions that may be implemented under section 7(a)(1) and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard and the section 9 take prohibition, as determined on the basis of the best available information at the time of the action.

Issue 2: Procedural and Legal Compliance

(13) *Comment:* The designation of critical habitat will place an additional burden on land management agencies above and beyond what the listing of the species would require. The number of section 7 consultations will increase; large areas where no owls are known to occur will now be subject to section 7 consultation and will result in a waste of time and money by the affected agencies. Many

Federal agencies have been making a "no effect" call within unoccupied suitable habitat. Now, with critical habitat there will be "may effect" determinations, and section 7 consultation will be required if any of the constituent elements are present.

Our Response: If a Federal agency funds, authorizes, or carries out an action that may affect either the owl or its critical habitat, the Act requires that the agency consult with us under section 7 of the Act. For a project to affect critical habitat, it must affect the primary constituent elements, which are defined in the regulation section in this final rule.

Our view is and has been that any Federal action that affects owl habitat as defined by the Recovery Plan should be considered a situation that "may affect" the owl and should undergo section 7 consultation (Service 1996). This is true whether or not critical habitat is designated, even when the particular project site within the larger geographical area occupied by the species is not known to be currently occupied by an individual owl (*e.g.*, projects on the Carson National Forest). All areas designated as critical habitat are essential to the conservation of the species, so Federal actions affecting primary constituent elements of the owl should undergo consultation. As in the past, the Federal action agency will continue to make the determination as to whether their project may affect a species or designated critical habitat.

(14) *Comment:* Many commenters expressed concern that the Recovery Plan is not being implemented, and that federally funded or authorized activities (*i.e.*, logging, grazing, dam construction, etc.) within owl habitat are not consistent with recovery for the species and/or are not undergoing section 7 consultation for potential impacts to the owl.

Our Response: We are not aware of instances where action agencies have not consulted with us on actions that may affect the species or its habitat. We have consulted with Federal agencies on numerous projects since we issued the Recovery Plan. The Recovery Plan recognizes, as do we, that agencies must make management decisions for multiple use objectives. Thus, agencies consult with us under section 7 when they propose actions that are both consistent and inconsistent with Recovery Plan recommendations (*i.e.*, when they propose actions that may affect the species or critical habitat) (Service 1996). However, there have only been two consultations to date that have concluded that a proposed action is likely to jeopardize the continued existence of the owl (*i.e.*, the November 25, 1996, biological opinion on the existing forest plans and the June 13, 1996, biological opinion on the releases of site specific information).

(15) *Comment:* One commenter believes that the designation of critical habitat for the owl conflicts with the Federal Land Policy and Management Act of 1976, the Mining and Minerals Policy Act of 1970, the National Materials and Minerals Policy, Research,

and Development Act of 1980, and other State and county policies and plans within the four States.

Our Response: We read through the comments and information provided concerning the various acts and policies; however, the commenter failed to adequately explain the rationale for why they believe critical habitat designation conflicts with the above Federal laws and policies or other State and County policies and plans. We are unaware of any conflicts with the cited laws, policies, and plans. However, we do recognize that significant conservation can be achieved by implementing these laws, which may obviate the need to designate critical habitat, especially when these laws are providing such conservation benefits.

(16) *Comment:* The FS and Bureau of Land Management (BLM) provided Geographic Information System (GIS) coverages and requested that we revise or exclude critical habitat units based upon lack of protected or restricted habitat and primary constituent elements. The suggested revisions are based upon digital elevation models, elevation, vegetation, owl surveys, and land management designations (*i.e.*, wilderness study areas). There was an expressed concern that much of the area within the proposed critical habitat boundaries does not contain one or more primary constituent elements to meet the definition of critical habitat and should not be included.

Our Response: We considered the information provided by the commenters and designated only those lands that were determined to be essential for the conservation of the owl (see "Summary of Changes From the Proposed Rule" section).

Critical habitat is defined as the areas within the mapped boundaries. However, as described in the "Section 7 Consultation" section below, consultation would occur when the action agency determines that activities they sponsor, fund, or authorize may affect areas defined as protected or restricted habitat that contain one or more of the primary constituent elements.

(17) *Comment:* Some commenters expressed concern that there are areas containing owls, but these were not within the critical habitat boundaries. Additional areas not identified in the proposed rule should be designated critical habitat. The Service should designate additional sites in Colorado, specifically Mesa Verde National Park, Boulder Mountain Parks, Red Rocks, Glenwood Canyon, and other deep, narrow canyon systems throughout the State.

Our Response: The critical habitat designation did not include some areas that are known to have widely scattered owl sites, low population densities, and/or unknown or marginal habitat quality, which are not considered to be essential to this species' conservation. Section 3(5) of the Act state [sic] that, "Except in those certain circumstances * * * critical habitat shall not include the entire geographical area

which can be ocupied [sic] by a species, rather only those areas essential for the conservation of the species.["] Additionally, section 4(b)(4) of the Act and the Administrative Procedure Act (5 U.S.C. 551 *et seq.*) requires that areas designated as critical habitat must first be proposed as such. Thus, we cannot make additions in this final rule to include areas that were not included in the proposed rule. Designation of such areas would require a new or revised proposal and subsequent final rule.

(18) *Comment:* Why are areas included in the designation that are not presently occupied by the owl?

Our Response: The areas designated are within the geographical area occupied by the species because the critical habitat designation is devised around the majority of known owl nesting sites. The designation includes both protected and restricted habitat, as defined in the Recovery Plan, and contains the primary constituent elements as identified herein. We consider protected areas to be occupied on a more permanent basis and restricted areas are considered to be temporally occupied. We have included these areas in the designation based on information contained within the Recovery Plan that finds them to be essential to the conservation of the species because they currently possess the essential habitat requirements for nesting, roosting, foraging, and dispersal.

In section 3(5)(A) of the Act, critical habitat is defined as "(i) the specific areas within the

geographical area occupied by the species on which are found those physical and biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside of the geographical area occupied by the species * * * [that] are essential to the conservation of the species". Pursuant to the Act and our implementing regulations, we must determine whether the designation of critical habitat for a given species is prudent and determinable. If it is both, then we conduct a focused analysis to determine and delineate the specific areas, within the geographical area occupied by the species that contain the physical and biological features essential to the conservation of the species. Once these areas are defined, a determination is then made as to whether additional specific areas outside of the geographical area occupied by the species are required for the conservation of the species. In conducting our analyses, we use the best scientific and commercial data available. Our analyses take into consideration specific parameters including (1) space for individual and population growth and normal behavior; (2) food, water, air, light, minerals or other nutritional or physiological requirements; (3) cover or shelter; (4) sites for breeding, reproductions, rearing of offspring, germination or seed dispersal; and (5) habitats that are protected from disturbance or are representative of the historical or ecological distribution of the species (50 CFR 424.12(b)). Consequently, we do take into consideration all available information concerning a species, its habitat, ecology,

and threats and conduct an analysis to determine which specific areas are essential to its conservation. This final designation of critical habitat for the owl has been developed using the approach discussed above and constitutes our best assessment of the areas essential to its conservation.

(19) *Comment:* If land has dual ownership of private and Federal, is it critical habitat? The land in question is under private ownership and the mineral rights are owned by the BLM.

Our Response: The surface ownership is what would contain the primary constituent elements of critical habitat. Because the surface ownership is private and we are not including private land in this designation (see "Criteria for Identifying Critical Habitat Units" section below for further explaination [sic]), we would not consider the lands to be designated critical habitat. However, if a Federal agency (*e.g.*, BLM) funds, authorizes, or carries out an action (*e.g.*, mineral extraction) that may affect the owl or its habitat, the Act requires that the agency consult with us under section 7 of the Act. This is required whether or not critical habitat is designated for a listed species.

(20) *Comment:* Fort Carson, Colorado, provided information during the comment period that indicated the owl is not known to nest on the military installation and the species is a rare winter visitor. Protected or restricted habitat is also not known to exist on Fort Carson. In 2003, the Service reviewed

and approved Fort Carson's final Integrated Natural Resources Management Plan (INRMP) that includes specific guidelines and protection measures for the owl. The INRMP includes measures to provide year-round containment and suppression of wildland fire and the establishment of a protective buffer zone around each roost tree. Other comments indicated that owls frequently use Fort Carson in the winter and the installation is an important winter foraging and roosting area.

Our Response: Fort Carson completed their final INRMP on April 8, 2003, which includes specific guidelines for protection and management for the owl. Thus, we are excluding this area from the final designation of critical habiat [sic] for the owl pursuant to section 4(a)(3) of the Act.

(21) *Comment:* How will the exclusion of certain lands (*e.g.*, State, private, Tribal) affect recovery and delisting of the owl?

Our Response: In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, we are required to base critical habitat designation on the best scientific and commercial data available and to consider those physical and biological features (primary constituent elements) that are essential to conservation of the species and that may require special management considerations or protection. We designated critical habitat for those lands we determined are essential to conservation of the owl. We did not include certain lands (*e.g.*, State, private, and

Tribal) because we determined these areas are not essential to the conservation of the owl or because the benefits of excluding the specific areas pursuant to section 4(b)(2) of the Act outweigh the benefits of their inclusion. Because the majority of owls are known from Federal land, the exclusion of State, private, and Tribal lands in the designation of critical habitat for the owl will not affect the recovery and future delisting of the species. Whether or not a species has designated critical habitat, it is protected both from any actions resulting in an unlawful take and from Federal actions that could jeopardize the continued existence of the species. Moreover, our environmental assessment of this designation pursuant to NEPA found that our existing policy requires consultation on actions in suitable habitat outside of PACs regardless of critical habitat designation. In practice, critical habitat designation is unlikely to trigger section 7 consultations that would not occur in its absence. This is because Federal agencies are following the Recovery Plan and consulting with us on impacts to both protected and restricted habitat.

(22) *Comment:* The areas proposed as critical habitat in Colorado make up 4.2 percent of the total proposed critical habitat. Much of the areas proposed in Colorado do not contain the primary constituent elements for critical habitat for the owl. It is difficult to understand how the small amount of habitat proposed in Colorado is essential for the survival and recovery of the owl. The current tree stocking levels, species composition, and stand structure of areas

proposed as critical habitat in Colorado do not currently, nor are they likely to, meet the definition of restricted "threshold" habitat as defined in the Recovery Plan.

Our Response: We carefully reviewed and considered the information provided by the commenter concerning this issue. We agree that not all of the land within the critical habitat boundaries in Colorado or elsewhere supports protected or restricted habitat. To the extent possible, we attempted to exclude from final critical habitat those area [sic] that did not support the primary constituent elements for the owl or protected or restricted habtiat [sic]. However, we may not have been able to exclude all such areas from the final designation. Federal actions limited to these areas would not be reviewed under section 7, unless they affect the species and/or the primary constituent elements in adjacent critical habitat.

(23) *Comment:* The statement that continued grazing in upland habitat will not adversely affect or modify critical habitat is unsubstantiated and is counter to FS information that suggests grazing may affect owl prey and increase the susceptibility of owl habitat to fire.

Our Response: Although the effects of livestock and wild ungulate grazing on the habitat of owl prey species is a complex issue, there exists some knowledge regarding the effects of grazing and small mammals frequently consumed by owls and plant communities inhabited by the owl's prey (Ward and

Block 1995; Ward 2001). The Recovery Plan summarizes the effects of grazing to owls in four broad categories: (1) Altered prey availability; (2) altered susceptibility to fire; (3) degradation of riparian plant communities; and (4) impaired ability of plant communities to develop into owl habitat. In general, predicting the magnitude of grazing effects on owls and their habitats requires a better understanding of the relationship between owl habitat and grazing (Service 1995a). Nevertheless, grazing in upland habitat has the potential to adversely impact the owl.

It is also important to note that grazing usually does not occur within mixed conifer habitat because livestock generally remain within meadows or riparian areas. In this example, the primary constituent elements within mixed conifer habitat are not likely to be substantially or significantly affected by grazing. Thus, the impacts to nest/roost and other mixed conifer habitat within PACs will likely be insignificant and discountable.

When grazing activities involve Federal funding, a Federal permit, or other Federal action, consultation is required when such activities have the potential to adversely affect the owl or its critical habitat. The consultation will analyze and determine to what degree the species is impacted by the proposed action.

(24) *Comment:* What is being done by Federal agencies to minimize the impact from wild ungulates on owl habitat (*e.g.*, elk grazing)?

Our Response: The Federal agencies use their discretion when selecting specific management strategies and activities. Consequently, a variety of techniques could be applied to manage range condition targets. The specifics are beyond the scope of this designation. In general, allowable forage use guidance for given range conditions and management strategies are typically developed through site specific NEPA analysis for individual allotments, and must be consistent with the applicable FS's Forest Plan Resource, BLM's Resource Management Plan, or other Agencies' management direction at the time they are issued (*e.g.*, FS see 36 CFR 219.10). Moreover, it is our understanding that the Federal action agency must consider the effect from all grazing activities (*i.e.*, livestock and wild ungulates) when they authorize grazing permits and manage and protect long-term range conditions consistent with their own range management regulations. Nevertheless, it is the responsibility of State game and fish agencies to manage elk. As noted throughout this final rule, when a Federal agency funds, authorizes, or carries out an action that may affect either the owl or its critical habitat, the Act requires that the agency consult with us under section 7.

(25) *Comment:* A premise for the proposed rule is that the Service was ordered by the court on March 13, 2000, to designate critical habitat by January 15, 2001. The court may not order critical habitat to be designated. Rather, the court may order the Service to make a decision on whether to designate critical

habitat. The designation of critical habitat is an action that is ultimately discretionary, and the Service must apply the criteria in the Act and its regulations to decide whether to designate critical habitat. Thus, the Service should seek correction of that Court order and reconsider whether and to what extent critical habitat should be designated.

Our Response: The March 2000 court decision ordered us to repropose critical habitat for the owl and then publish a new final designation. Because we had already previously proposed and finalized critical habtiat [sic] for the owl (60 FR 29914, June 6, 1995), we already determined that critical habitat pursuant to the Act and implementing regulations was both prudent and determinable. Thus, the court would be within its jurisdiction to order us to repropose and publish a new final rule.

(26) *Comment:* Are lands within a National Park that are already protected, but proposed as wilderness areas, considered critical habitat?

Our Response: Yes, we consider lands that are within critical habitat boundaries as critical habitat, regardless of whether they are currently designated as wilderness.

(27) *Comment:* Military aircraft overflights and ballistic missile testing activities have no adverse effect on owl critical habitat.

Our Response: We believe that low-level military aircraft overflights could potentially affect the

owl. However, the designation of critical habitat will not impede the ability of military aircraft to conduct overflights nor to conduct ballistic missile testing activities. Activities such as these will not require additional section 7 consultation beyond compliance related to the species. To clarify, proposed low-level military aircraft overflights that could potentially affect the owl will be reviewed during the consultation process for the species listing as they have in the past.

(28) *Comment:* Explain the rationale for excluding, by definition, State and private lands from the proposed designation; there are documented nesting sites for the owl in Colorado located on State-leased lands; State and private lands should be included; the majority of owl locations are from Federal lands because no one is doing surveys on private and State lands.

Our Response: Although we are aware of some owl locations on State and private lands, the majority of owl locations are from Federal and Tribal lands. Thus, we believe that owl conservation can best be achieved by management of Federal and Tribal lands, and determined that State and private lands are not essential to the species' recovery. We have therefore, not included State and private lands in this designation of critical habitat for the owl.

(29) *Comment:* Several commenters asked whether projects that have obtained a biological opinion pursuant to section 7 of the Act would be

required to reinitiate consultation to address the designation of critical habitat. Will the FS have to reinitiate consultation on their Forest Plans when critical habitat is designated?

Our Response: In the case of projects that have undergone section 7 consultation and where that consultation did not address potential destruction or adverse modification of critical habitat for the owl, reinitiation of section 7 consultation may be required. The only exception is the consultation covering the 157 WUI project areas and the Penasco WUI project area that are not included in the designation, because the lands covered by these projects are specifically excluded due to human health and safety concerns from the imminent risk of catastrophic wildfire (see Exclusions Under Section 4(b)(2) and Regulations sections). As described in the 4(b)(8) discussion below, we expect that projects that do not jeopardize the continued existence of the owl will not likely destroy or adversely modify its critical habitat and no additional modification to the project would be required because the projects will be evaluated under the guidelines set by the Recovery Plan for both jeopardy to the species and adverse modification of critical habitat. This has been the case for those projects where the FS has completed conferencing on critical habitat (see Effect of Critical Habitat Designation section below).

(30) *Comment:* The El Paso Natural Gas Company questioned whether the designation of critical habitat will require consultation for routine

maintenance and operations. For example, if a linear pipeline project crosses State, private, and FS lands, will consultation be required?

Our Response: Federal agencies are already required to consult with us on activities with a Federal nexus (*i.e.*, when a Federal agency is funding, permitting, or in some way authorizing a project) when their activities may affect the species. As discussed in response to Comment 29 above, and elsewhere in this rule, we do not anticipate additional requirements beyond those required by listing the owl as threatened. For routine maintenance and operations of public utilities or if a linear pipeline project crosses State, private, and FS lands and does not affect the species or critical habitat, consultation will not be required. If maintenance activities would affect primary constituent elements of critical habitat and there is a Federal nexus, then section 7 consultation will be necessary.

(31) *Comment:* Several commenters questioned what the phrase, "may require special management considerations" means, and asked what kind of management activities might be implemented?

Our Response: Critical habitat is defined in section 3(5)(A) of the Act as "(i) the specific areas within the geographical area occupied by the species, at the time it is listed * * * on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection * * * "

While the Act or our implementing regulations do not define the phrase "may require special management or protection," we believe that in this final rule we have identified in general terms the types of special management and protection that the physical or biological features (*i.e.*, primary constituent elements) for the owl may require (refer to *Special* Management Considerations or Protections section). Additionally, the Recovery Plan includes guidelines that we believe also address special management considerations.

(32) *Comment:* Maps and descriptions provided are vague and violate the Act and 50 CFR Sec. 424.12(c).

Our Response: The maps published in the **Federal Register** are for illustration purposes only, and the amount of detail that can be provided on the maps published in the **Federal Register** is limited. While the legal descriptions published with the maps are specific and detailed to the areas being designated, we recognize that these descriptions may not be the most user-friendly. However, more detailed maps and GIS digital files of areas designated as critical habitat for the owl are available from the New Mexico Ecological Services Field Office (see **ADDRESSES** section). If additional clarification is necessary, please contact the New Mexico Ecological Services Field Office (see **ADDRESSES** section).

(33) *Comment:* Additional public hearings were requested during the public comment period for the

purpose of presenting information and receiving comments.

Our Response: Earlier in this rule we discuss the extent by which we have attempted to engage the public in this rulemaking through public comment periods, public meetings, and news releases. More recently, on April 21, 2004, we held an informational meeting in Las Cruces, New Mexico. During this meeting, the Service and our contractors were present to answer participant's detailed questions. Due to the abbreviated timeframe to complete this final designation, we were not able to extend or reopen the public comment period or hold additional public hearings. However, due to our extensive efforts in attempting to involve the public in this rulemaking process, we believe that we have allowed for adequate opportunity for the public to provide information and comments to us.

(34) *Comment:* The Salt River Project, Arizona, questioned the current Service policy of excluding areas from the proposed designation prior to the areas being proposed, when the Act's implementing regulations require that the Secretary shall, after proposing designation, consider exclusion of areas for economic or other relevant impacts (50 CFR 424.19).

Our Response: The July 21, 2000 (65 FR 45336), proposed rule for the owl did not exclude any areas under section (4)(b)(2) of the Act. In our November 18, 2003 (68 FR 65020), notice reopening the comment period, we provided a preliminary 4(b)(2) analysis for

tribal lands and indicated that we anticipated excluding tribal lands from the final designation based on our working relationship with the tribes and the fact that we had either received their owl management plans or would receive them shortly. However, this was only a preliminary analysis and no exclusions pursuant to section 4(b)(2) of the Act have been made until this final rule.

(35) *Comment:* The Service's conclusion that some unoccupied areas are essential to the conservation of the owl is questionable given that implementing regulations indicate the unoccupied habitat should only be designated when occupied areas are not adequate to ensure the conservation of the species (50 CFR 424.12(e)). The Service did not make a formal finding that occupied areas would be inadequate.

Our Response: Based on our analysis of the best available scientific and commercial data, we determined that all areas included in this designation are essential for the conservation of the species and within the geographical area occupied by the species (see response to comment 18 and "Criteria Used to Identify Critical Habitat" section below). Because the specific areas being designated are within the geographical area occupied by the species, we (*i.e.*, the Secretary of Interior) are not required to make a separate determination as to whether the lands included in the designation are essential to the conservation of the owl.

(36) *Comment:* The Service's definition of adverse modification of critical habitat in the proposed rule is inconsistent with the *Sierra Club* v. *U.S. Fish and Wildlife Service* (245 F.3d 434, U.S. Circuit Court of Appeals for the Fifth Circuit).

Our Response: Recent appellate court decisions (*i.e.*, *Sierra Club* v. *U.S. Fish and Wildlife Service et al.*, 245 F.3d 434 (Fifth Circuit, March 15, 2001); Gifford *Pinchot Task Force* v. *U.S. Fish and Wildlife Service*, 03-35279, 2004 U.S. App. Lexis 16215 (Ninth Circuit, August 6, 2004)), found our definition of adverse modification to be invalid. In response to these decisions, we are reviewing the regulatory definition of adverse modification in relation to the conservation of the species (See "Effects of Critical Habitat Designation" section). However, section 7 consultations for the owl and its critical habitat meet the standards articulated in these judicial decisions because guidelines for habitat management from the Recovery Plan for the owl are used to establish habitat management during section 7 consultations.

(37) *Comment:* How will the Service determine when the owl is recovered? Nowhere in the proposed rule does the Service articulate when protections under the Act will no longer be necessary.

Our Response: Critical habitat can assist in the recovery of a species, but does not achieve nor define what is needed for recovery. Recovery goals and criteria are defined by an operable plan. For example, the delisting criteria identified in the Recovery Plan

(Service 1995) include: (1) The population in the three most populated Recovery Units (*i.e.*, upper Gila Mountains, Basin and Range East and Basin and Range West) must be stable or increasing after 10 years of monitoring; (2) scientifically-valid habitat monitoring protocols are designed and implemented to assess: (a) Gross changes in habitat quantity across the range of the species, and (b) habitat modifications and trajectories within treated stands; and (3) a long-term management plan is in place to ensure appropriate management for the species and its habitat. When these criteria are satisfied, we will evaluate the subspecies to determine if delisting may be warranted.

(38) *Comment:* The Service notes in the February 1, 2001, final rule that the 4.6 million acres (1.9 million hectares) designated was likely over inclusive because the short deadline did not allow the fine-scale mapping necessary to physically exclude all of the areas that do not contain suitable habitat. Did the Service refine its mapping of critical habitat during the past three years since the proposed rule was published and shouldn't the Service be soliciting comments based on maps that more accurately depict the area the Service will treat as critical habitat?

Our Response: We refined our maps delineating the boundaries of critical habitat for the owl after considering public comments and information received from a variety of sources including the FS, BLM, and State agencies (*See* "Summary of Changes From the Proposed Rule" section). While we believe

these maps to be much more refined, because of data limitations and time and resource constraints, we were not able to remove all specific areas that do not contain one or more of the primary constituent elements for the owl.

(39) *Comment:* The Service should readopt the February 2001 final rule to designate critical habitat for the owl.

Our Response: We have based this current final designation of critical habitat for the owl on our February 2001 final rule. We have, however, refined the previous designation based on the best available scientific and commercial data, public comments, and current policy. Please see the "Summary of Changes From the Proposed Rule" section below.

(40) *Comment:* The Service should also exclude areas that are covered by habitat conservation plans, safe harbor agreements, and other private lands covered by similar voluntary programs.

Our Response: As discussed throughout this final rule, we have determined that there are no private lands that have been determined to be essential to the conservation of the owl, and therefore included in this designation. The conservation programs that the commenter has raised are solely for private landowners. Since we have not included private lands in this designation, then exclusions of lands based on these conservation programs are not directly relevant.

(41) *Comment:* When you post a document on the internet, you limit the public's ability to comment because many people do not have a computer.

Our Response: In our proposed rule, and subsequent published notices and outreach materials concerning this rulemaking, we provided alternative procedures to obtain the documents, including mailing hard copies of documents when they are requested and obtaining hard copies from the New Mexico Fish and Wildlife Office. We believe that we have made all appropriate documents and information adequately available to the public for review and comment.

(42) *Comment:* Failure to designate FS lands will miss an opportunity to educate the public on the owl.

Our Response: In *Sierra Club* v. *Fish and Wildlife Service*, 245 F.3d 434 (5th Cir. 2001), the Fifth Circuit Court of Appeals stated that the identification of habitat essential to the conservation of the species can provide informational benefits to the public, State and local governments, scientific organizations, and Federal agencies. The court also noted that heightened public awareness of the plight of listed species and their habitats may facilitate conservation efforts. We agree with these findings. The proposed and final rules identify all areas that are essential to the conservation of the owl, regardless of whether all of these areas are included in the regulatory designation.

Consequently, we believe that the informational benefits are provided.

(43) *Comment:* The FS in Region 3 is currently failing to implement its guidelines to protect the owl, and thus reconsultation is required even without critical habitat. Critical habitat would provide for reconsultation in an efficient and consistent manner.

Our Response: The FS in Region 3 has submitted a biological assessment to the Service on April 8, 2004, and requested reinitiation of the programmatic consultation for the 1996 Regional Land and Resource Management Plan Amendment that incorporated Recovery Plan guidelines for managing habitat of the species.

(44) *Comment:* Land management agencies have the necessary tools to manage habitat for the owl without designating critical habitat. Local support for the conservation of the species is required or you will not achieve recovery.

Our Response: We agree that the support of the public is essential to achieve recovery of this species. In excluding some areas from the designation, we are recognizing and acknowledging that conservation can be achieved outside of a critical habitat designation (*see* "Exclusions Under Section 4(b)(2)" section).

(45) *Comment:* The FS amended their [sic] National Forest Plans in Arizona and New Mexico in 1996 to conform to the Recovery Plan. These plans are still valid and in use, indicating that designation

of critical habitat on FS lands in these states is not necessary. The National Forests in Arizona have amended their land and resource management plans to incorporate the Recovery Plan. Consistent with the Service's justification for not designating critical habitat on certain Tribal lands because habitat management plans are still valid and being implemented on these lands, the designation of critical habitat on FS lands may not be necessary because of existing land and resource management plans that are responsive to owl conservation.

Our Response: In our 2001 designation (66 FR 8530), we reached this conclusion and determined that FS lands in Arizona and New Mexico did not meet the definition of critical habitat because special management was already being provided through their land and resource management plans. Thus, we did not designate these lands, as well as the tribal lands of the Mescalero Apache and the Navajo Nation, as critical habitat because we felt that "additional" special management was not needed. However, on January 13, 2003, the United States District Court for the District of Arizona (*Center for Biological Diversity* v. *Norton*, Civ. No. 01-409 TUC DCB) rejected our conclusion and ruled that our final rule designating critical habitat for the owl violated the Act, as well as the APA. The Court did not agree with our interpretation of the definition of critical habitat (*i.e.* that essential areas may not be included in critical habitat because special management is already being provided) and, in addition, the Court ruled that even

if we follow the Service's interpretation, the management provided by the FS was inadequate to justify excluding these lands. On November 12, 2003, the United States District Court for the District of Arizona, (*Center for Biological Diversity* v. *Norton*, Civ. No. 01-409 TUC DCB), ordered the Service to submit a new final rule for designation of critical habitat for the owl to the **Federal Register** by August 20, 2004. We have prepared this designation pursuant to that Court order.

(46) *Comment:* Private property and water rights will be taken as a result of the designation. The Service did not indicate or reveal that property rights were factored into any analyses.

Our Response: The mere promulgation of a regulation, like the enactment of a statute, does not take private property unless the regulation on its face denies the property owners all economically beneficial or productive use of their land (*Agins* v. *City of Tiburon,* 447 U.S. 255, 260-263 (1980); *Hodel* v. *Virginia Surface Mining and Reclamation Ass'n,* 452 U.S. 264, 195 [sic] (1981); *Lucas* v. *South Carolina Coastal Council,* 505 U.S. 1003, 1014 (1992)). The Act does not automatically restrict all uses of critical habitat, but only imposes requirements under section 7(a)(2) on Federal agency actions that may result in destruction or adverse modification of designated critical habitat. This requirement does not apply to private actions that do not need Federal approvals, permits or funding. Furthermore, as discussed above, if a biological opinion concludes that a proposed action is likely to

result in destruction or modification of critical habitat, we are required to suggest reasonable and prudent alternatives. In addition, State and private lands are not included in this designation by definition. In accordance with Executive Order 12630, we conclude that this designation does not have significant takings implications (see "Required Determinations" section below). As noted in our response to comment (88), we have also considered and reviewed information contained in our records, as well as in the economic and environmental analyses, as to whether holders of grazing permits may be impacted by the designation. At this time, we are unaware of any instances where grazing permit holders will be so substantially impacted as to constitute a "taking" of property under the 5th Amendment.

(47) *Comment:* The Service did not consider the indirect effect of critical habitat designation on adjacent lands that are not designated. For example, designation might affect fire suppression activities on nearby critical habitat, which could increase the risk of catastrophic wildfire on lands that are not within the designation.

Our Response: We have a special category of section 7 consultation, and corresponding regulations (50 CFR 402.05) called "Emergency Consultations." The consultation process does not affect the ability of an agency to respond to emergency events such as suppression of wildfire. During emergency events, our primary objective is to provide recommendations for minimizing adverse effects to listed species without

impeding response efforts. Protecting human life and property comes first every time. Consequently, no constraints for protection of listed species or their critical habitat are ever recommended if they place human lives or structures (*e.g.*, houses) in danger. We are currently working with many of our Federal partners to provide technical assistance, coordination, and, in some instances, section 7 consultation for proactive projects to reduce the potential for emergency events (*e.g.*, WUI fuels management).

Issue 3: National Environmental Policy Act (NEPA) Compliance and Economic Analysis

(48) *Comment:* Several commenters questioned the adequacy of the Environmental Assessment (EA) and other aspects of our compliance with NEPA. They believe the Service should prepare an Environmental Impact Statement (EIS) on this action.

Our Response: The commenters did not provide sufficient rationale to explain why they believed the EA was inadequate and an EIS necessary. One of the purposes of an environmental assessment is to briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact (40 CFR 1508.9). An EIS is required only in instances where a proposed Federal action is expected to have a significant impact on the human environment. In order to determine whether designation of critical habitat would have such an effect, we prepared an EA

of the effects of the proposed designation. We made the draft EA available for public comment on March 26, 2004, and published a notice of its availability in the **Federal Register** (69 FR 15777). Following consideration of public comments, we prepared a final EA which determined that the critical habitat designation for the owl does not constitute a major Federal action having a significant impact on the human environment. That determination is the basis for our Finding of No Significant Impact (FONSI). Both the final EA and FONSI are available for public review (see **ADDRESSES** section).

(49) *Comment:* Sierra, Lincoln, Otero, Counties, New Mexico, and the Coalition of Arizona/New Mexico Counties asked to be part of the NEPA process and were concerned that the Service would not have "important information" to complete the environmental assessment or economic analysis. These parties believe that they were not afforded the opportunity to participate in the NEPA process as required by the CEQ implementing regulations (40 CFR 1501.6; 1508.5) or the January 30, 2002, CEQ Memorandum for the Heads of Federal Agencies discussing cooperating agencies and procedural requirements of NEPA (CEQ Memorandum). We received several requests to hold public hearings to solicit comments on the draft environmental assessment and draft economic analysis. The Coalition of Arizona and New Mexico counties requested that a hearing be held close to or in each affected member county.

Our Response: The CEQ regulations require that Federal agencies responsible for preparing NEPA analyses and documentation do so "in cooperation with State and local governments" and other agencies with jurisdiction by law or special expertise. As detailed below, we attempted to engage these parties in the NEPA process, to meet the spirit and intent of cooperating agency status. We believe that the NEPA process was conducted consistent with the CEQ implementing regulations and the CEQ Memorandum. For example, we held stakeholder meetings on November 6 and 7, 2003, in Albuquerque and Phoenix to solicit relevant information for our analyses. Moreover, on November 18, 2003, we reopened the comment period on the July 21, 2000, proposed rule to designate critical habitat for the owl (68 FR 65020). As such, we mailed a copy of the **Federal Register** notice and a letter describing our intent to conduct a new NEPA analysis to all interested parties, including the commenters. On January 27, 2004, we responded to requests from these parties by inviting them to participate in the NEPA process and providing contact information for our NEPA and economic analysis contractors, so that they could communicate directly with them. The Service and our contractors conducting the economic analysis also contacted Otero County, New Mexico, in February 2004, to request any socioeconomic or other information. None of the parties provided any data to the Service or our contractors.

On March 26, 2004, we mailed copies of the draft environmental assessment and the draft economic analysis to these parties requesting their expert review, and providing an invitation to work with each of the parties to address any concerns or issues. We also invited them to a public informational meeting in Las Cruces, New Mexico, on April 20, 2004. This meeting provided an opportunity for public input and allowed the Service to answer any questions concerning the proposed rule, the draft environmental assessment, or the draft economic analysis. The parties did not provide any information to us, did not attend the public informational meeting, and did not contact us to schedule any additional meetings or provide information.

(50) *Comment:* The draft economic analysis failed to adequately estimate the potential economic impacts to landowners regarding various forest management and other activities.

Our Response: In our economic analysis, we attempted to address potential economic impacts from the designation on landowners and activities, including forest management activities. The analysis was based upon the best data available to our contractors. We subsequently released our draft analysis for public review and comment to specifically seek input from affected landowners, agencies, jurisdictions, and governments. Our final analysis incorporates or addresses any new information and issues raised in the public comments. Please refer to our final economic

analysis of the designation for a more detailed discussion of these issues.

(51) *Comment:* Several commenters voiced concern that they were not directly contacted for their opinions on the economic impacts of critical habitat designation.

Our Response: It was not feasible to contact every potential stakeholder in order for us to develop a draft economic analysis. We believe we were able to understand the issues of concern to the local communities based on public comments submitted on the proposed rule and draft economic analysis, on transcripts from public hearings, and from detailed discussions with Service representatives, and from data otherwise available to us and our contractors. To clarify issues, we solicited information and comments from representatives of Federal, State, Tribal, and local government agencies, as well as some private landowners, and requested comments from all interested parties, including landowners we were unable to contact directly.

(52) *Comment:* The opportunity for public comment on the draft Economic Analysis and draft Environmental Assessment was limited.

Our Response: We announced the availability of these documents in the **Federal Register** on March 26, 2004, and opened a 30-day public comment period for the draft Economic Analysis, draft Environmental Assessment, and proposed rule. On November 13, 2003, the United States District Court for the District

of Arizona, (*Center for Biological Diversity* v. *Norton*, Civ. No. 01-409 TUC DCB), extended the original deadlines for designating critical habitat and ordered us [to] deliver the final rule to the **Federal Register** on August 20, 2004. We believe that sufficient time was allowed for the public to review and provide comment on these documents given the time frame ordered by the court.

(53) *Comment:* Your draft Economic Analysis did not consider watersheds, water rights, State water rights, adjudication with Texas on water rights, or the effect on water rights of any of the people within those watersheds.

Our Response: While we appreciate the concerns raised by the commenter about water rights, we do not have any specific information that leads us to believe that the designation of critical habitat for the owl will have any impact on water rights of any kind. Further, it is our interpretation that the commenter did not adequately explain their rationale as to why they believed critical habitat for the owl will impact watersheds or water rights.

(54) *Comment:* The draft economic analysis and proposed rule do not comply with Executive Order 12866, which requires each Federal agency to assess the costs and benefits of proposed regulations.

Our Response: We determined that this rule will not have an annual economic effect of $100 million or adversely affect an economic sector, productivity, jobs, the environment, or other units of government. Thus,

a cost-benefit analysis is not required for purposes of Executive Order 12866 (see "Required Determinations" section).

(55) *Comment:* The draft economic analysis, draft environmental assessment, and proposed rule failed to adequately estimate and address the potential economic and environmental consequences and how timber, fuel wood, land acquisition and disposal, oil and gas development, and mining would be impacted by the designation.

Our Response: In our proposed rule and subsequent notices reopening the comment period on the proposal and draft economic analysis, we solicited information and comments associated with the potential impacts of designating critical habitat for the owl. Further, our economic analysis contractor conducted a variety of interviews to understand and estimate the types of potential impacts and costs that were perceived to stem from owl conservation. We reviewed all comments received during the public comment periods and have concluded that further information was not provided on how the designation of critical habitat would result in economic or environmental consequences beyond those already addressed in the economic analysis, environmental assessment, or this final rule.

(56) *Comment:* One commenter questioned whether publishing the proposed rule prior to releasing the environmental assessment violated the intent of NEPA by being pre-decisional. The Service did not

consider a reasonable range of alternatives in the NEPA analysis.

Our Response: Alternative I in the environmental assessment was to finalize the designation of critical habitat as described in the proposed rule published in the **Federal Register** on July 21, 2000 (65 FR 45336). The draft EA also considered a no-action alternative and two other action alternatives. We believe the alternatives in our EA were sufficient, the document was consistent with the spirit and intent of NEPA, and it was not pre-decisional.

(57) *Comment:* The assumption applied in the economic analysis that the designation of critical habitat will cause no impacts above and beyond those caused by listing of the species is faulty, legally indefensible, and contrary to the Act. "Adverse modification" and "jeopardy" are different, will result in different impacts, and should be analyzed as such in the economic analysis.

Our Response: We have conducted a new analysis of the economic impacts of designating these areas, in a manner that is consistent with the ruling of the 10th Circuit Court of Appeals in *New Mexico Cattle Growers Ass'n* v. *USFWS,* 248 F.3d 1277 (10th Cir. 2001). As this economic analysis details, we included an analysis of "co-extensive" effects. As such, the economic analysis does not focus only on section 7 impacts.

(58) *Comment:* The proposed designation of critical habitat targets private property and will

impose economic hardship on private landowners. There is an expressed concern that the proposed critical habitat designation would have serious financial implications for grazing and sources of revenue that depend upon Federal "multiple-use" lands. The designation will have harmful impacts on the quality of life, education, and economic stability of small towns. Anticipated effects on private property from habitat conservation plans under section 10 of the Act are not explained.

Our Response: As indicated in our proposal and this final rule, critical habitat for the owl is not being designated on private lands. Further, as stated in the economic analysis, the proposed rule to designate critical habitat for the owl is adding few, if any, new requirements to the current regulatory process. Since consultations for the adverse modification of the owl's critical habitat and jeopardy to the species are based upon determinations of consistency with the owl's Recovery Plan, the listing of the owl itself initiated the requirement for consultation. The critical habitat designation is unlikely to result in additional requirements not already in place due to the species' listing.

(59) *Comment:* The Service did not engage in a good faith effort to develop and collect information regarding the full range of economic impacts consistent with recent case law (*New Mexico Cattlegrowers Association* v. *United States Fish and Wildlife Service,* 248 F.3d 1277 (10 Circuit 2001) and *Home Builders Association of Northern California* v. *United*

States Fish and Wildlife Service, 268 F. Supp. 2d 1197 (E.D. Cal. 2003)).

Our Response: We believe the public was provided the opportunity to comment on all aspects of this designation and the associated documents (*See* response to comment 49 and "Previous Federal Action" section), and that this final rule and associated economic analysis and EA are consistent with current case law. The fact that this issue was raised during the public comment period reinforces our belief that we did provide "a good faith effort."

(60) *Comment:* The final rule designating critical habitat must include an explanation of the cost/benefit analysis for both why an area was included and why an area was excluded. The economic analysis fails to acknowledge the benefits of protecting the owls (*i.e.*, healthier watershed). One commenter also stated that economic benefits such as recreation and tourism dollars should be included.

Our Response: We did not have specific, scientifically credible data related to the benefits of designating critical habitat for the owl on the lands that are being designated. Because of this lack of data, we were not able to conduct an economic benefits analysis as the commenter suggested. However, if this data were available we would consider it in our analysis.

As we undertake the process of designating critical habitat for a species, we first evaluate lands defined by those physical and biological features essential to the conservation of the species within the

geographical area occupied by the species for inclusion in the designation pursuant to section 3(5)(A) of the Act. Secondly, we evaluate lands defined by those features to assess whether they may require special management considerations or protection. Next we evaluate lands outside the geographical area occupied by the species to determine if any specific area is essential to the conservation of the species. The resulting lands in the designation are determined to be essential to the conservation of the species, for which justification for their inclusion and the potential benefits to the species from the designation are discussed throughout our proposed rule and this final rule. Accordingly, we believe that the biological and conservation benefits afforded the species by the inclusion of lands determined to be essential to the conservation of the species have been thoroughly explained.

Pursuant to section 4(b)(2) of the Act, we are required to take into consideration the economic impact, National Security, and any other relevant impact of specifying any particular area as critical habitat. We also may exclude any area from critical habitat if we determine that the benefits of such exclusion outweighs the benefits of specifying such area as part of the critical habitat, providing that the failure to designate such area will not result in the extinction of the species. We use information from our economic analysis, or other sources such as public comments, management plans, *etc.*, to conduct this analysis. For us to consider excluding an area from

the designation, we are required to determine that the benefits of the exclusion outweighs [sic] the benefits (*i.e.*, biological or conservation benefits) of including the specific area in the designation. This is not simply a cost/benefit analysis, however. This is a policy analysis, and can include consideration of the impacts of the designation, the benefits to the species of the designation as well as policy considerations such as National Security, Tribal relationships, impacts on conservation partnerships and other public policy concerns. This evaluation is done on a case-by-case basis for particular areas based on the best available scientific and commercial data. A discussion of this analysis and any resulting exclusions is in this final designation.

(61) *Comment:* The Service should exclude Federal and Tribal lands that are currently covered by management plans for the owl. Failure to exclude areas from critical habitat that are subject to voluntary protection measures for the owl will undercut the attractiveness and usefulness of the full range of conservation tools and make management/conservation far less effective.

Our Response: It has been our policy to recognize voluntary conservation efforts and support those programs and partnerships. As such we have excluded from the designation of critical habitat for the owl areas covered by conservation plans for that owl that have been determined to provide a conservation benefit to the owl and its habitat (*See* "Exclusions Under Section 4(b)(2)" section below).

(62) *Comment:* The Service's economic analysis is too large in scope to evaluate those effects attributed solely to critical habitat because it analyzed all cost associated with "owl conservation measures." It is not clear how the Service could attribute impacts either exclusively or coextensively to critical habitat under this framework.

Our Response: The inclusion of economic costs related to listing and provisions of the Act, other than the critical habitat designation, have been quantified in the final economic analysis. This analysis includes co-extensive costs as well as costs related to the previous and current critical habitat designations.

(63) *Comment:* The economic analysis does not explain why a 10-year time period was selected. One commenter believes that the timeframe of ten years used in the analysis is too short and is inconsistent with other economic studies.

Our Response: To produce credible results, the economic analysis must consider impacts that are reasonably foreseeable. Based on available data, a ten-year timeframe was most fitting for this analysis. Federal and Tribal land use management agencies affected by this designation generally do not have specific plans for projects beyond ten years; thus, forecasting beyond ten years would increase the subjectivity of estimating potential impacts in this case. In addition, with respect to the timber industry in this region, detailed regional forecasts of activity in this industry beyond ten years are limited. The

10-year time horizon was also selected because the Recovery Plan is premised upon a similar time horizon.

(64) *Comment:* The economic analysis severely overinflates the costs attributable to grazing and other potential impacts.

Our Response: The commenter did not provide any data for us to consider and did not explain why he or she believes our estimates to be inadequate. Still, the economic analysis used the best information available to estimate potential impacts, while indicating that some of our assumptions were likely to be conservative and overstate effects. We understand that the public wants to know more about the kinds of costs section 7 consultations impose and frequently believes that critical habitat designation could require additional project modifications. Because of the potential uncertainty about the economic costs resulting from critical habitat designations, we believe it is reasonable to estimate the upper bounds of the cost of project modifications on the basis of the economic costs of project modifications that would be required by consultation. The final economic analysis provides a detailed study concerning the potential effects of the designation of critical habitat for the owl, and we believe it is in compliance with the Tenth Circuit's decision in *New Mexico Cattle Growers Ass'n* v. *U.S. Fish and Wildlife Service,* 248 F.3d 1277.

(65) *Comment:* One commenter notes that the "national perspective" example of efficiency effects

discussed in the text box on page 1-4 could be used as an excuse not to analyze the economic impact of critical habitat designation on local areas. In addition, this commenter suggests that the report should include both regional economic and efficiency impacts for all economic sectors affected by the owl from a critical habitat designation. Another commenter suggested that regional economic impacts should have been calculated for impacts related to the oil and gas industry.

Our Response: As noted in the referenced text box on page 1-4, there are several valid measures of economic impact. These include efficiency effects, which consider changes in national economic well-being, and distributional effects, including impacts to the economies of specific regions. Both efficiency effects and distributional effects are considered in the economic analysis. Specifically, impacts to the timber industry were measured as regional economic impacts (as discussed in the text box on page 3-2), while impacts to the grazing industry were measured as efficiency effects. In the economic analysis, regional economic impacts were not calculated for the grazing industry since the magnitude of expected impacts from owl-related restrictions on grazing was modest relative to the size of the grazing industry in the affected regions. Specifically, the forecast impact on grazing represents a loss of less than one-quarter of one percent of the grazing activity in New Mexico and Arizona. This is based on the loss of animal unit months (AUMs) calculated in the analysis compared

to the total number of AUMs grazed in New Mexico and Arizona. However, in response to comments received and in order to provide additional information to interested parties, in the final economic analysis, the grazing section (Section 4) has been revised to include a discussion of regional economic impacts.

Similarly, the economic analysis did not calculate regional economic impacts related to the oil and gas industry because the magnitude of potential impacts was small in relation to the regional oil and gas economic activity. However, the analysis has been revised to include further discussion of economic impacts resulting from delays of oil and gas activities for owl conservation. Further research suggests that before drilling can commence, two years of surveys must be completed, which may delay drilling activities. While operators may sometimes be able to plan ahead, often it is difficult to build two years into the planning process, so drilling may effectively be delayed, depending on when owl surveys are completed and drilling can commence. This postponement may result in regional economic impacts. Based on available information, past impacts due to drilling delays have been limited, and the extent to which delays will result in impacts in the future is subject to a variety of uncertainties. Future impacts will depend on the number of wells delayed by owl conservation efforts, the production and success rates of future wells, and future costs to develop wells, all of which are not known with certainty. Discussion of potential future

regional economic impacts from delays to oil and gas activities has been added to Section 7.2 of the final economic analysis.

(66) *Comment:* Several commenters ask how the economic analysis could be used to determine areas that might be excluded, stating that the level of aggregation of results doesn't allow for decision-making and "distorts the analysis." In addition, commenters note that the analysis does not break down the impacts to the county level.

Our Response: Given the nature of the designation (including only Federal and Tribal lands) and the data available to estimate economic impacts, results were presented at the management unit level (for example, by National Forest for FS lands, see Exhibits ES-2, ES-3, 3-3, 3-10, 3-11, 3-13, 4-5, 4-6, 4-7, 4-8, 5-5, 5-6, 7-7, 7-8). This level of detail allows for direct comparison of economic impacts with biological benefits, and thus the information presented can be considered, along with other factors, in deciding whether to exclude an area from the designation. While results are not given for each county individually, in the summary of results (Exhibits ES-2 and ES-3), the counties in which each unit is located are listed. Therefore, the report does provide information for parties interested in impacts at the county level.

(67) *Comment:* Several commenters believe that the economic analysis focused on section 7 consultations and therefore failed to disclose true impacts. One of these commenters states that the

report fails to discuss "listing of the owl and attendant section 9 protections[.]" Another commenter believes that the Service only addressed incremental economic costs to Federal Agencies involved in section 7 consultations and failed to analyze "impacts of critical habitat designation to current cultural or historical land management practices involving agriculture, silviculture or recreation." Another commenter states that it is misleading to discuss impacts from 1992 since primary economic impacts stem from the listing of the owl, not the designation of critical habitat.

Our Response: The commenters are incorrect in stating that the analysis focused on section 7 consultation and incremental impacts and failed to discuss impacts that stem from listing and other protections. The methodological approach and scope of the economic analysis is presented in Section 1 of the report. As this section details, the economic analysis complies with direction from *New Mexico Cattle Growers Ass'n* v. *U.S. Fish and Wildlife Service,* 248 F.3d 1277 that, when deciding which areas to designate as critical habitat, the economic analysis informing that decision should include "co-extensive" effects. As such, the economic analysis does not focus only on section 7 impacts. As stated on page ES-1, "This analysis considers the potential economic effects of owl conservation activities in the proposed critical habitat designation. Actions undertaken to meet the requirements of other Federal, State, and local laws and policies may afford protection to the owl and its

habitat, and thus contribute to the efficacy of critical habitat-related conservation and recovery efforts. Thus, the impacts of these activities are relevant for understanding the full impact of the proposed critical habitat designation." The inclusion of impacts related to listing and provisions of the Act other than section 7 are discussed in Section 1.2, Scope of the Analysis. The past and ongoing [sic], and future costs related to owl conservation activities that have been quantified in the final economic analysis include co-extensive costs as well as costs related to the previous and current designations. Past costs resulting from owl conservation efforts are included since they represent co-extensive effects of critical habitat designation that have occurred since the listing of the species.

In addition, the report addresses impacts to agriculture in Section 4, Economic Impacts to Livestock Grazing Activities. Silviculture is addressed in Section 3, Economic Impacts to the Timber Industry, and recreation is addressed in Section 7.1, Impacts to Recreational Activities.

(68) *Comment:* One commenter states that the economic analysis consistently overstates costs to an extent considered arbitrary and capricious. Other commenters believe that the costs are understated because the analysis fails to consider impacts beyond section 7.

Our Response: The methodology and assumptions used to arrive at estimates of economic impacts are detailed in the report in Section 1, Exhibit ES-6,

and Exhibit 3-14. Due to uncertainties regarding impacts, a range of estimates is presented, based on the best scientific and commercial information available at the time the analysis was being conducted. The data sources utilized in the report are discussed in Section 1.4 and specific citations are provided throughout the report and in the Reference list. In addition, the report has been reviewed by three independent technical advisors, all of whom found the approaches used to analyze impacts were appropriate.

(69) *Comment:* One commenter questions the method for determining "co-extensive" costs. The commenter is unclear if costs defined as co-extensive would necessarily be required under critical habitat alone. The commenter raises two examples of types of costs that it did not feel should be considered co-extensive, including costs related to FS measures for implementing Recovery Plan and costs related to Tribe's management plans. In particular, the commenter believes that because the Tribes' management plans will remain in place whether or not critical habitat is designated on Tribal lands, these costs should not be considered co-extensive with the designation.

Our Response: In order to comply with direction from the *New Mexico Cattle Growers Ass'n* v. *U.S. Fish and Wildlife Service* (248 F.3d 1277), the economic analysis addresses "co-extensive" effects of this designation. The economic analysis considers all impacts that result from efforts to protect [the] owl and

its habitat (referred to as "owl conservation activities"). As stated on page ES-1, "Actions undertaken to meet the requirements of other Federal, State, and local laws and policies may afford protection to the owl and its habitat, and thus contribute to the efficacy of critical habitat-related conservation and recovery efforts. Thus, the impacts of these activities are relevant for understanding the full impact of the proposed critical habitat." The scope of the analysis is discussed in Section 1.2 of the report. Costs related to implementation of the Recovery Plan, such as impacts resulting from owl-related standards and guidelines included in the Forest Service's Land and Resource Management Plans, are considered "co-extensive" because they result directly from the listing of the species. These impacts are addressed in Sections 3 and 4 of the report. In addition, the Tribe's owl management plans were likely created as a result of the listing of the species and the previous designations, and therefore are considered co-extensive effects of critical habitat for the purposes of this analysis. Impacts related to [the] Tribe's owl management plans are addressed in Section 6 of the economic analysis.

(70) *Comment:* A commenter suggests that the phrase "owl conservation efforts" be defined in the Executive Summary.

Our Response: The phrase "owl conservation activities" is defined in Section 1 of the report as "efforts to protect owl and its habitat." The phrase "owl conservation efforts" is used interchangeably

with ["]owl conservation activities["] in the report. Text has been added to the final economic analysis to clarify these phrases at the beginning of the Executive Summary.

(71) *Comment:* A commenter questions the appropriate baseline for the statement in the report that additional impacts due to critical habitat are unlikely. This commenter believes impacts from previous designation should not be included in the baseline. Another commenter thought that the economic analysis should consider the devastating impacts that have already occurred within the Lincoln National Forest as a result of "ongoing attempts at critical habitat designation that started in 1980s"; this commenter also provides estimates of present value revenue from forest products for south central New Mexico from the 1930s through the 1960s.

Our Response: This comment refers to the following statement on page ES-5 of the economic analysis: "For the most part, this analysis does not anticipate that designation of critical habitat for the owl will result in additional economic impacts above and beyond the current regulatory burden." This statement relates to impacts from this rulemaking specifically. The final economic analysis is not limited to quantifying the incremental, or "additional" impacts of critical habitat. Instead, in order to comply with direction from *New Mexico Cattle Growers Ass'n* v. *U.S. Fish and Wildlife Service,* 248 F.3d 1277, the results presented in the economic analysis include "co-extensive" effects of designation, as discussed in

Response #3 and in Section 1 of the report. Impacts on the timber industry related to past designations were included in the past and ongoing impacts addressed in Section 3 of the final economic analysis.

With regard to the figures on present value of revenues from forest products for south central New Mexico, these estimates are for time periods prior to the listing of the owl. As the commenter notes, the industry experienced marked declines in revenues during this period. The economic analysis provided a similar discussion of the historical context for the timber industry in the southwest in Section 2.5.

(72) *Comment:* One commenter raises a number of questions with regard to the structure and content of the final economic analysis, including the following: How many economic statistics were sampled? What was the sampling intensity? What was the level of replication? What is the statistical design? What hypotheses are being tested? What variables were statistically significant between costs and impacts?

Our Response: The models used to calculate economic impacts related to owl conservation activities are based on a reliable sample of economic data. For example, the final economic analysis utilizes a software package called IMPLAN to estimate the total economic effects of the reduction in economic activity in the timber, grazing, and oil and gas industries in the study area. IMPLAN is commonly used by State and Federal agencies for policy planning and

evaluation purposes. The model draws upon data from several Federal and State agencies, including the Bureau of Economic Analysis and the Bureau of Labor Statistics. In addition, a wide range of statistical data were utilized in order to gain an understanding of the economic environment in the areas and industries affected by this designation. The data sources relied upon are detailed in the references at the end of the report, and discussed in Section 1.4 Information Sources. Factors that may introduce uncertainty and bias into the analysis (*i.e.*, level of confidence in the results) are discussed throughout the report, and are summarized in Exhibit ES-6.

(73) *Comment:* One commenter raises a number of questions with regard to the structure and content of the final economic analysis, including the following: Were private stakeholders and communities solicited for input throughout the study period? How long was the study period?

Our Response: Private stakeholders have been solicited for input throughout the preparation of the economic analysis, as evidenced by various communications and data sources relied upon in the report. The data sources relied upon are detailed in the references at the end of the report, and discussed in Section 1.4, Information Sources. The Service undertook various efforts to solicit public comment from the general public and stakeholders in particular. This included meetings held with Action agencies in Albuquerque and Phoenix, to provide information to the economic consultants. In addition, the economic

consultants met with each of the Tribes whose lands were included in the proposed designation.

(74) *Comment:* One commenter raises a number of questions with regard to the structure and content of the final economic analysis, including the following: How were impacts determined? What economic and social parameters are being measured? What methods were used to analyze the economic and social data? What additional assumptions of critical habitat economic impacts beyond the assumed direct relationship of Federal agencies were used? What are the direct, induced and indirect economic cost impacts to affected communities from owl critical habitat designation? What were the results? How much variability was explained by the data?

Our Response: The final economic analysis discusses in detail how impacts were determined, the economic parameters measured, the analytical methods used, the assumptions underlying the analysis, and the results; please refer to the report for this information.

(75) *Comment:* One commenter questions what the peer review process is with regard to the final economic analysis.

Our Response: The report was reviewed by three independent technical advisors: Dr. Delworth Gardner, Resource & Agricultural Economics Specialist, Brigham Young University (Livestock Grazing), Dr. David Brookshire, Natural Resource and Environmental Economics Specialist, University of New

Mexico (southwestern U.S. resource economics), and Dr. Roger Sedjo, Resources for the Future (Timber). These reviewers were each asked to read sections of the draft report, based on their expertise, and to provide feedback on the analytical methodology and the validity of the results. This feedback was then incorporated into the final draft report, as appropriate.

(76) *Comment:* Several commenters state that private property issues are not addressed in the economic analysis. In particular, one commenter states that costs to the private sector related to section 7 or section 10 are not explained or analyzed. For example, one commenter states that non-Federal landowners who voluntarily implement owl recovery management plans and apply for an incidental take will now have a Federal nexus. In addition, this commenter states that several counties will have more than 90 percent of their private land with critical habitat management impositions. Another commenter believes that the report should address the impacts of development of private land around the designation if rancher forced to sell due to AUM restrictions on Federal lands. Also, one commenter commends the Service for including impacts on HCPs or other section 10 permit efforts.

Our Response: Private property is specifically excluded from the designation. However, the analysis does consider the impacts of private entities developing Habitat Conservation Plans (HCP) under section 10 of the Act. Based on available data, there are no

HCPs in place for the owl; however, there is one HCP under development by a private party for gravel mining activities in Colorado. Impacts related to this HCP are discussed in Section 7.3.1 of the final economic analysis. In addition, to the extent that private parties involved in grazing or timber activities on Federal lands are affected by owl related conservation activities, these impacts have been captured in the regional impact analyses of the timber and grazing industries. These analyses are presented in Sections 3 and 4 of the final economic analysis, respectively. The report also analyzes direct ranch level income effects resulting from reductions in permitted or authorized AUMs on Federal lands. These effects are summarized in Section 4 of the economic analysis. As noted in Section 1.2.3 of the final economic analysis, because the designation excludes private property, significant changes to private property values associated with public attitudes about critical habitat designation (known as "stigma" impacts) are not expected.

(77) *Comment:* Two commenters question the validity of personal communications as a data source.

Our Response: A wide variety of data sources are utilized in the economic analysis. The report provides clear referencing of the data relied upon for the analysis. The data sources relied upon are detailed in the references at the end of the report, and discussed in Section 1.4, Information Sources. Wherever possible, information provided by informed parties was confirmed by published data sources.

Given the nature of the analysis, however, the use of published data sources is not always possible. The economic analysis has been based on the best scientific and commercial information, which includes discussions with informed parties and stakeholders, as well as published data sources. In addition, the report has been reviewed by three independent reviewers, including specialists in southwestern resource economics, timber issues, and livestock grazing issues.

(78) *Comment:* Several commenters note the economic analysis should assess social impacts associated with the designation. Commenters are concerned that the analysis did not mention social impact to rural areas or discuss the social benefits of grazing.

Our Response: The economic analysis is focused on analyzing the costs associated with owl conservation activities and is not intended to provide an analysis of social or cultural impacts. However, the environmental assessment did address social impacts (please refer the environmental assessment).

(79) *Comment:* One commenter raises a number of questions with regard to the structure and content of the final economic analysis and environmental assessment including the following: What are the cumulative socioeconomic and cultural impact costs to affected communities from owl critical habitat designation? What disproportionate burdens on affected minorities were identified and analyzed?

Our Response: Cumulative effects are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions" (40 CFR § 1508.7).

Cumulative effects are disclosed in section 3.11, where it is stated that: "Effects of proposed critical habitat designation on most resource areas are generally similar under each of the action alternatives, and vary only in terms of potential area of effect. These effects consist primarily of the potential for minor changes to projects resulting from reinitiation of consultation and implementation of discretionary conservation recommendations. These potential impacts are not likely to result in any cumulative effects, when added to the effects of existing section 7 consultations for other species and existing land management plans and policies." The cumulative effects analysis was clarified that critical habitat designation is unlikely to result in additional project modifications compared to the existing condition (*i.e.* project modification resulting from consultation on effects to the species). Cumulative effects from any of the critical habitat designation alternatives are therefore improbable.

The heading of section 3.10 was changed to *Environmental Justice and Social Conditions.* In fact, the U.S. Fish and Wildlife Service's checklist for social impacts was used in preparation of the EA (*http://*

www.fws.gov/r9esnepa/NEPA%20Handbook%20TOC.pdf). The EA was edited to specifically list the concerns outlined in the checklist and briefly discuss those that were considered relevant. Impacts to minority and low income populations were disclosed in section 3.10 of the draft EA.

The economic analysis considered impacts resulting from all activities related to conservation of the owl. However, the EA found that these impacts would occur regardless of critical habitat designation because all suitable habitat outside of PACs (is already considered in consultations on effects to the species.

(80) *Comment:* One commenter is concerned that the socioeconomic statistics presented in the economic analysis do not include production agriculture. The commenter notes that the data used in the analysis were derived from County Business Patterns data that does not accurately portray the role of the agricultural production sector. The commenter suggests using data from the U.S. Department of Commerce, Bureau of Economic Analysis' Regional Economic Information System.

Our Response: The commenter is referring to data presented in Exhibits 2-4 and 2-5 of the report for the counties within the critical habitat designation. These data are presented to give the reader an overview of the economy in the region affected by the designation. These data were considered the best scientific and commercial data available for the purpose of providing a general overview. The Agriculture,

Forestry, Hunting, and Fishing category in these tables is defined by the U.S. Census Bureau as consisting of establishments primarily engaged in growing crops, raising animals, harvesting timber, and harvesting fish and other animals from a farm, ranch, or their natural habitats (NAICS Code 11). The commenter is correct that these figures do not include agricultural production. However, a more detailed overview of agriculture production in the region focusing on livestock grazing is presented in Section 2.3 of the report. While the Regional Economic Information System provides earnings by industry data, this information is not reported consistently for the counties within the study area for the most recent time period. Many of the county industry earnings are not reported for 2001 to avoid disclosing confidential information, or because the data was not available. The County Business Pattern data was more consistently available for the counties within the study period for the most recent time period; thus, this data was presented in the report.

(81) *Comment:* One commenter requests further information regarding the citation in footnote 41, especially with regard to data on earnings and total employment.

Our Response: This comment refers to a reference included in the discussion of the regional agriculture industry in Section 2.6 of the report. The reference is correct for data on earnings, based on livestock receipts as a share of total commodity receipts, which was obtained from the USDA

National Agricultural Statistics Service for Arizona, Colorado, New Mexico, and Utah. However, as the commenter notes, the employment data referred to in the text is from a different data source. Statements about employment in the livestock industry are based on data from the U.S. Census Bureau's County Business Patterns. The footnote has been revised in the final report to more accurately cite the basis for the statements regarding earnings and employment.

(82) *Comment:* Several commenters question how timber impacts could be analyzed when there is no longer any timber industry in the region. Another commenter notes that many of the mills cited as being in operation are processing firewood and pellets, and operate on wood from WUI projects that have minimal if any impact on owls.

Our Response: As discussed in Section 2.5 of the economic analysis, the number of mills in operation and the amount of timber harvested from National Forests in the region have both declined significantly over the past 10 years. However, the analysis of impacts on the timber industry is based on a range of estimates of National Forest areas where timber harvest is restricted as a result of owl conservation efforts. For the upper-bound estimate, the analysis considers a scenario under which the industry would be capable of harvesting and processing timber from these lands. Thus, the impacts represent timber-related economic output and jobs that would have been available if owl conservation efforts did not

occur. Results of the timber industry analysis are presented in Section 3 of the economic analysis.

Data on mills operating in the region, some of which are producing fuelwood and pellets, was provided by FS Region 2 and is included in the analysis in Exhibit 2-9. The commenter correctly notes that WUI projects are providing a source of supply for operating mills in the region.

(83) *Comment:* One commenter discusses how the cessation of logging activities has impacted taxpayers and social structure in affected communities in New Mexico. The commenter believes that the study minimizes the local impacts by averaging the damage.

Our Response: Clearly the decline of the timber industry has had significant economic impacts on local communities in New Mexico and Arizona. The report is focused on the impacts of owl conservation activities, rather than the overall impacts of the decline of the timber industry. As a result, the economic analysis quantifies the regional economic impacts associated with restrictions on logging in National Forests due to owl conservation efforts. The results of the regional economic impact analysis of the timber industry is presented in Sections 3.2.2 and 3.3.2 of the report.

(84) *Comment:* One commenter states that Tribes outside designation could be affected by owl conservation efforts, and these impacts should be included in the analysis. For example, the commenter

believes Tribes outside of the designation could be affected by increased wildfire risk and secondary impacts affecting the regional economy. Another commenter states that they did not see where economic impacts were evaluated for the Ute Tribe.

Our Response: Tribes located outside of the proposed designation were not expected to experience direct economic impacts related to the designation, and therefore these Tribes are not specifically addressed in the analysis. However, to the extent that there are regional economic impacts related to restrictions on timber and grazing activities, if impacts to Tribes are likely, these have been captured in the regional economic impact analyses of these industries. These analyses are presented in Sections 3 and 4 of the final economic analysis, respectively. In addition, Section 5 presents an analysis of impacts to fire management activities that may result from owl conservation activities, including a discussion of the potential for increased wildfire risk.

(85) *Comment:* One commenter states that the Navajo sawmill – Navajo Forest Products Industries (NFPI) was not shutdown in July of 1994 due to issues related to the owl, but rather was shutdown due to financial mismanagement.

Our Response: Based on available information, the injunction on timber harvest on Navajo lands was one of the factors contributing to the demise of NFPI in 1994. However, there were likely other factors contributing to the shutdown of the mill operations.

This final economic analysis was not altered in its assumption that the lack of availability of timber from Navajo lands was a factor in the shutdown of the mill based on this comment letter. However, in response to this comment, the economic analysis has been revised to attribute the NFPI shutdown to a variety of factors, including the cessation of timber harvest on Navajo lands.

(86) *Comment:* One commenter notes that the termination of logging activities and the subsequent fuel load build-up over time has produced the potential for wildfires that could devastate the entire Lincoln National Forest. This commenter provides supporting information including estimates of lost timber value, costs of fire management activities, data on average number of acres destroyed per fire from 1960-2002, and fire suppression costs.

Our Response: The issue of impacts to fire management activities is discussed in Section 5 of the economic analysis. The data provided by the commenter on the average number of acres destroyed per fire is consistent with the data presented in Exhibit 5-1 and discussed in Section 5.1.1, Wildfire in the Southwest. The data estimating costs of fire management activities and lost timber value have been noted. As discussed in Section 5.2.3, Project Modifications Associated with Fire Suppression Activities, if a wildfire occurs, consultation takes place after the fact; therefore, fire suppression activities are not affected by owl conservation, as indicated in Exhibit 5-4. The potential for increased wildfire

risk resulting from owl conservation efforts is discussed in Section 5 of the economic analysis. However, models for quantifying the impacts of increased wildfire risk are not available at a scale that would allow us to address the impact of owl conservation efforts. Therefore, these impacts are not quantified in the report.

(87) *Comment:* One commenter notes that owl protections prevent effective forest and watershed treatment which results in unnecessary fire fighting costs and destruction of water delivery, water quality impacts and infrastructure destroyed or damaged. The commenter believes the loss of environmental services should have been included in the analysis.

Our Response: The impacts of owl conservation activities on forest management and treatment are considered in Section 5 of the report. The resulting impacts are summarized in Exhibit 5-4. As illustrated in this exhibit, fire suppression activities are not expected to be modified as a result of owl conservation activities. As discussed in this section, the analysis found that restrictions on thinning and vegetation removal in PACs could have some economic impact.

(88) *Comment:* Several commenters state that regional economic impacts in areas where livestock grazing may be affected should be considered. Commenters note that there are indirect and induced effects on the regional economy that result from lost output in the range livestock or ranching sector. Commenters state that the economic analysis does

not show actual economic burden to ranchers and county budgets. One commenter states that critical habitat will cause a reduction in cattle numbers and be detrimental to the New Mexico economy. This commenter provides information on reduced cattle numbers in Catron County, New Mexico, and the potential impacts of reductions in cattle in that County.

Our Response: As stated in Section 4 of the analysis, the estimated annual reduction in grazing anticipated to result from owl conservation measures represents approximately 0.14 percent of the annual AUMs grazed in affected states. This estimate includes impacts that are likely to result from numerous causes unrelated to the Act, but which could not be separated due to their temporal and spatial correlation with owl-related activities. To assume that a reduction in AUMs in owl critical habitat areas will result in an accompanying decrease in livestock production region-wide requires the assumption that no substitutions in forage will be made to adjust for the reductions in AUMs authorized in owl critical habitat areas. This is unlikely, given the well-documented behavior of ranchers wishing to maintain existing herds. For example, Rimbey *et al.* (2003) states that when faced with changes to public forage availability, ranchers "would do everything they could do to maintain their existing herd. Depending upon when the reductions occurred during the year, the ranchers identified alternatives for maintaining herd size and remaining in business: purchase (or not sell)

additional hay (to replace forage in winter, early spring or late fall), and look for private pasture and rangeland leases (summer forage) (Rimbey *et al.* 2003). The last alternative mentioned by ranchers was the reduction in the number of cattle they would run on their ranches" (Rowe *et al.* 2001; Torell *et al.* 2001). Thus, given observed rancher behavior, it is unlikely that a reduction in permitted or authorized AUMs of Federal allotments in owl critical habitat areas would necessarily lead to a reduction in herd size, as long as replacement forage is available.

However, given the localized nature of ranching and the increasing number of restrictions on ranching behavior overall, it is possible that additional reductions that may be associated with owl conservation could occur in areas where substitute forage areas are not available, or where supplemental forage is prohibitively expensive. The economic analysis captures the value of those losses to rancher wealth by assuming that ranchers lose the value of AUMs reduced on Federal lands (*i.e.*, effectively assuming that no replacement forage is available). While assuming a region-wide reduction in AUMs equal to that estimated in the analysis is clearly conservative (*i.e.* more likely to overstate costs than understate costs), it may provide additional context for the reader who wishes to understand the potential impacts to the regional economy. As a result, a regional economic impact analysis using the IMPLAN model has been added to Section 4.3 and Section 4.5 of the analysis.

(89) *Comment:* One commenter states that permit value is not a widely used method to estimate impacts to the ranching industry. This commenter states that permit value is essentially a measure of rancher wealth based on the number of federally permitted AUMs he is allowed to graze, the value of the Federal grazing fee, and the private property and property rights owned by the permittee. This commenter also states that permit value is not recognized by the FS and only becomes a monetary transaction when the rancher sells or tries to sell his private property along with the associated grazing privileges.

Our Response: We agree with the commenter's definition of permit value as a measure of rancher wealth. Indeed, Section 4 of the economic analysis focuses on the estimation of potential lost rancher wealth that may be associated with a reduction in Federal AUMs grazed due to owl conservation efforts. This lost rancher wealth is measured in terms of lost permit value. Numerous published articles have focused on the derivation of permit value for Federal grazing permits. For example, Torell *et al.* (2001) state that, "permit value represents the only available direct valuation of public land forage, except for a few scattered instances where public land is competitively leased. Using an appropriate capitalization rate, annualized estimates of forage value can be determined from the observed permit value." In a summary of recommended forage valuation methods, the author states that, "permit values provide a direct and site-specific estimate of forage value.

Theoretically, this estimate should provide a site-specific estimate of value while considering the inherent production characteristics, regulations, and economic potential of specific allotments" (Torell *et al.* 1994). Thus, as discussed in Section 4.3.2, the revised economic analysis relies on the results of nine recent studies that attempt to measure the permit value of Federal grazing (per AUM) in order to estimate an average permit value for grazing on FS and BLM lands.

It is true that a 1970 court decision supported the government's position that ranchers "are not given title to the grazing resource and as such do not own a property right or have a corresponding economic right to permit value" (Torell *et al.* 1994). Yet, numerous published studies have found that a rancher maintains a value for holding a permit whether or not he sells his property (Torell and Doll 1991; Rowan and Workman 1992; Sunderman and Spahr 1994; Spahr and Sunderman 1995; Torell and Kincaid 1996). Thus, this analysis assumes that value is lost if a rancher is forced to reduce his AUMs grazed.

(90) *Comment:* One commenter states that the analysis overestimates impacts on grazing activity from owl, and should take the following factors into account when calculating the "bottom line" results: the number of threatened and endangered species in the allotment, existing soil and vegetation conditions, actual forage available in owl PACs, the climatic changes reducing AUMs, competition with other

ungulates, and reductions in protective utilization levels accepted by range science.

Our Response: Section 4.2 of the economic analysis discusses factors that affect the number of permitted and authorized AUMs approved by FS and BLM for a given grazing allotment containing owl habitat. These factors include the presence of endangered species, tree encroachment, fire suppression, forage availability, and forage by other ungulates. The analysis states that "on a particular allotment containing owl habitat, reductions to authorized or permitted AUMs made by FS or BLM may be: (1) Directly related to owl conservation; (2) indirectly related to owl conservation; (3) not related to owl conservation at all; or (4) resulting from a combination of factors." The analysis then explains each scenario in detail, and suggests that in most cases, reductions in AUMs result from a combination of factors. The analysis also concludes that because of the spatial and temporal overlap of past reductions in AUMs with owl habitat, it is difficult to separate owl-related causes from other causes of changes that occur in owl habitat areas.

(91) *Comment:* One commenter stated that the differences in permit types such as continuous and seasonal grazing permits should be addressed.

Our Response: Continuous, or year-long, permits for grazing on Federal lands are common in the affected study area. Ranchers with year-long permits are likely to have a greater fraction of their annual

forage base on Federal lands than those holding shorter, seasonal permits. This would imply that permit holders with yearlong permits may have less access to substitute forage, and thus may be more disadvantaged by AUM reductions than holders of seasonal permits. What is also implied is that an AUM of grazing in a year-long permit has greater value than an AUM in a seasonal permit. Indeed, Torell *et al.* (1994) find some evidence that permit values are greater in New Mexico, where year-long permits are common, than other states with more seasonal use (Torell *et al.* 1994). However, research has also shown that forage values vary throughout a year, and that some seasons may be more critical than others to a ranch operation (Godfrey and Bagley 1994). Thus, a rancher with a seasonal permit who relies on a particular season may also be severely affected by reductions in AUMs. A discussion of the differential effect of permit type has been added to Section 4 of the analysis.

(92) *Comment:* BLM stated that consultations are not expected to result in AUM reductions on BLM lands in Arizona.

Our Response: This statement provides support for the final economic analysis, which does not forecast any future AUM reductions on BLM lands in Arizona.

(93) *Comment:* One commenter states that the analysis erroneously included private ranch economic figures that are not in critical habitat, not in owl

habitat, and not representative of ranch operations in affected areas. One commenter notes that a value of production figure was erroneously included in the permit value data. In addition, one commenter suggested that the permit values for Utah be removed from the analysis since this value has not been lost in Utah.

Our Response: Section 2.6 of the economic analysis presents economic information relevant to the livestock industry for each county affected by the proposed designation. Efforts were made to utilize site-specific data as much as possible throughout the sections of the analysis that discussed grazing. Estimates of AUM reductions were derived from consultations conducted in owl critical habitat areas. Authorized AUM estimates were derived from FS estimates in affected National Forests at the forest level. Permit value estimates were taken from recent, relevant studies in the field, primarily from areas where owl critical habitat was proposed. The two studies that provided permit value estimates for Utah were included because they were deemed relevant to this analysis. The value of production estimate has been removed from the permit value data.

(94) *Comment:* One commenter states that the costs associated with the proposed designation impacts on oil and gas activities are underestimated because the analysis did not consider owl-related restrictions on the time period available for exploration and development. The commenter believes that the owl stipulations limit the time period available

for drilling to 2.5 months each year. In particular, the commenter states that owl seasonal restrictions on drilling are from March 31-August 31. The commenter notes that in Utah, BLM stipulations in designated critical habitat (and outside of critical habitat) restrict development on existing and future oil and gas leases, by preventing or limiting access to leases, which leads to less production.

Our Response: In the economic analysis, impacts to the oil and gas industry related to delays resulting from owl drilling restrictions were not analyzed in detail because these were not considered likely. In particular, based on consultation history and because the owl breeding-season restriction would not be the only limiting factor for when an operator can drill, these delays were not considered a major impact in the economic analysis. In addition, since owl critical habitat in Utah has been in place since 2001, it is likely that operators in that area are aware of owl survey requirements in order to get a permit to drill. The analysis found that, if no owl are recorded during surveys, then owl restrictions are not likely. BLM has been attaching lease notices for owl critical habitat to oil and gas leases issued in the designation area since May 2002. These notices are part of the owl conservation activities undertaken by the BLM in order to raise awareness of owl issues at the leasing stage, and were considered in the economic analysis.

However, the analysis has been revised to include further discussion of economic impacts resulting from

delays of oil and gas activities for owl conservation. Further research suggests that before drilling can commence, two years of surveys must be completed, which may delay drilling activities. While operators may sometimes be able to plan ahead, often it is difficult to build two years into the planning process, so drilling may effectively be delayed, depending on when owl surveys are completed and drilling can commence. This postponement may result in regional economic impacts. Given the relatively small role the designation plays in the total supply of oil and gas and the availability of substitute sources of supply, national efficiency effects are not predicted. Of the active wells in Utah and New Mexico, less than one-half of one percent is in the proposed designation. However, localized regional economic impacts are possible, especially if producers are unable to shift production to other locations within the region.

Based on available information, past impacts due to drilling delays have been limited; and the impact of delays in the future is subject to a variety of uncertainties. Future impacts will depend on the number of wells delayed by owl conservation efforts, the availability of substitute drilling locations within the region, the production and success rates of future wells, and future costs to develop wells, all of which are not known with certainty. Discussion of potential future regional economic impacts from delays to oil and gas activities has been added to Section 7.2 of the final economic analysis.

(95) *Comment:* One commenter states that delays related to owl restrictions will preclude oil and gas development. The commenter goes on to detail the economic impacts of not drilling wells. The commenter believes that the economic impacts of not drilling a well impact the operator, the community and the public. The commenter provides a net present value estimate of $400,000 for an individual well in the Stone Cabin area that encompasses part of CP-15.

Our Response: The economic analysis does not estimate impacts related to the prohibition of drilling wells because this activity has not been prohibited in the past and is not anticipated to be prohibited in the future as a result of owl conservation. While the timing of drilling activities may be impacted as a result of owl conservation efforts, operators who hold oil and gas leases in the designation are not expected to be prohibited from drilling. Reductions in the supply of oil and gas or increases in the price of these commodities is unlikely given the relatively small role the designation plays in the total supply of oil and gas and the availability of substitute sources of supply. Of the active wells in Utah and New Mexico, less than one-half of one percent is in the proposed designation. However, in response to public comments and as a result of additional information gathered since the final draft report was published, Section 7.2 of the economic analysis has been revised to include further discussion of future impacts related to project modifications and potential regional economic

impacts of delays in oil and gas well drilling projects, as a result of owl conservation activities.

(96) *Comment:* One commenter believes that with respect to the oil and gas industry, the Service did not analyze "hidden social costs of the Act" such as the costs of reduced or terminated business activities and jobs, increased costs to provide services, and lower tax revenues from reduced or terminated business and personal income. The commenter further states that project delays or curtailment caused by the designation will have a ripple effect throughout local, state, regional and U.S. economies. In addition, the commenter provides estimates for local impacts based on analysis of drilling wells in Uintah and Duchesne counties in Utah.

Our Response: In the economic analysis, regional economic impacts were not considered likely to result from owl conservation activities in the case of the oil and gas industry because of the small portion of the industry affected by the designation. As the commenter notes, the amount of owl critical habitat within the existing and projected oil and gas fields of Utah is negligible at best. Of the active wells in Utah and New Mexico, less than one-half of one percent are in the proposed designation. While there is some potential for project delays due to owl conservation activities, it is possible that employees are able to find other work in the region, as the critical habitat represents a small amount of the local oil and gas industry. Given the current high price of natural gas (which is expected to continue), the resources (*e.g.*,

equipment and labor) needed to develop this commodity are in high demand. Thus, even if development of certain wells in the designation is delayed, resources would likely be employed elsewhere, or would only remain unused for a short period of time.

However, based on public comment and additional research, the final economic analysis includes a regional economic impact analysis for impacts on the oil and gas industry in Utah. The commenter notes that in Uintah County, it spends approximately $3.4 million to drill a deep well and $1.6 million to drill a shallow well. In order to estimate regional economic impacts, the analysis assumes that operators are unable to find suitable substitute drilling locations within Carbon, Emery and Uintah counties in Utah; thus, the associated economic contribution is lost to the region in that year. The direct effect of delaying the drilling of a well is estimated based on the level of spending that would be forgone in the region in that year. The regional impact analysis estimates the number of jobs and level of output that would be result from this potential loss of oil and gas activity in the region. The results of this analysis are included in Section 7.2 of the final economic analysis.

(97) *Comment:* A commenter states that the use of past costs to estimate future costs is a faulty assumption because gas development is expanding in the region. The commenter provides supporting information to illustrate the rate of expansion of oil & gas development in Utah.

Our Response: Section 7.2 of the economic analysis used estimates of past owl consultation efforts as the basis for forecasting the level of section 7 consultation efforts and surveying efforts related to oil and gas activities. The commenter is correct that gas development is expected to increase in Utah in the future, and specifically in the area where unit CP-15 lies. The commenter notes that natural gas production in Carbon County, Utah, has increased an average of 49 percent per year for the 1993 to 2002 period. Based on the BLM's August 2002 Minerals Potential Report for the Price Utah area, Coal Bed Methane development in this region is expected to increase significantly over the next ten years. Given this expected development, and based on discussions with BLM and the Service, the analysis has been revised to forecast a 300 percent increase in consultations and owl surveying efforts related to oil and gas activities in this area in the future.

(98) *Comment:* One commenter notes that, should critical habitat reduce or delay the development of natural gas wells, the supply of natural gas would decline and thus the price paid by consumers for this commodity would increase. The commenter provides citations to several studies documenting the current supply and demand conditions of the natural gas market, as well as reference to a model that considers the price implications of changes in supply and demand on the price consumers pay for natural gas.

Our Response: While the specific number of wells that could be drilled in designated critical habitat in the future is unknown, wells affected by owl conservation represent only a small portion of expected development in the region. Of the active wells in Utah and New Mexico, less than one-half of one percent are in the proposed designation. Given the current high price of natural gas (which is expected to continue), the resources (*e.g.*, equipment and labor) needed to develop this commodity are in high demand. Thus, even if development of certain wells is delayed, resources would likely be employed elsewhere, or would only remain unused for a short period of time.

Additional primary research would be required to estimate the impact on consumers of a small change in natural gas supply, and significant uncertainty would remain regarding the impact of owl conservation on the pace of well development, the impact of reduced development on gas supplies, etc. In addition, the impact measure provided by the commenter ($8 million in savings to consumers as a result of development of one well), does not account for possible losses to existing producers as the price falls (*i.e.*, changes in producer surplus). Thus, the net change in social welfare resulting from a change in supply of natural gas could be considerably smaller than that cited by the commenter.

The final economic analysis has been modified to include qualitative discussion of the potential impact of the designation on consumers of natural gas.

(99) *Comment:* The Service fails to consider substantial key data regarding the oil and gas industry in the region including employment data, production and revenues data and project modification data.

Our Response: The economic analysis did consider these types of statistics for the oil and gas industry in the region, as demonstrated by the data included in Exhibit 7-2. This exhibit presents employment data for oil and gas extraction as well as other sectors of the economy for the four states included in the designation. Data on oil and gas production in the region is also included in the analysis and presented in Exhibit 7-1. Revenue data for oil and gas operators was not available as many of the operators in the area are private operators and this information is confidential. In addition, many of the operators in the area operate in areas more expansive than the local region. Thus, revenue data were not included in the report. In the economic analysis, project modifications were considered unlikely for oil and gas projects; therefore these data were not included. However, in response to comments and based on further research, Section 7.2 of the report has been revised to include additional discussion of potential project modifications to oil and gas activities that could result from owl conservation activities.

(100) *Comment:* One commenter believes that the analysis of small business entities in the oil and gas industry is flawed because it compares the costs that local operators must incur to comply with owl restrictions in critical habitat to costs of operations

for the entire U.S. oil and gas industry. The commenter further states that although some oil and gas companies that operate within the proposed critical habitat areas are headquartered outside those areas, much of their domestic oil and gas production potential is in the Rocky Mountain Region.

Our Response: As discussed in the Section 8.3 of the economic analysis, based on a review of operators in Carbon County, Utah, the majority of operators in the oil and gas industry are headquartered outside of the region. Oil and gas companies operating in Carbon County, Utah, are located in a variety of states, including Texas, Oklahoma and Alabama, among others. To determine whether a substantial number of operators are likely to be affected, it is important to compare the affected operators to the potentially affected population of oil and gas operators. Since most of the operators in the region appear to be in a wide variety of locations across the United States, it was determined that the relevant area for purposes of this analysis is the United States.

(101) *Comment:* One commenter states that AUM reductions are not typically evenly distributed, thus there is the possibility for significant regional economic impacts if all ranches affected are in the same region.

Our Response: As discussed in the final economic analysis, Section 8.2 Livestock Grazing Small Business Impacts, information is not available to determine the specific permittees most likely to

experience a reduction in authorized AUMs. The analysis estimates an annual reduction of 3,100 to 15,600 AUMs for a variety of reasons, including actions unrelated to owl conservation. Since a typical permittee grazes approximately 1,070 AUMs, this reduction would likely affect more than one permittee. In order to estimate the number of permittees potentially affected, the analysis uses two approaches. First, the analysis estimates the number of permittees that could possibly experience a complete reduction in their authorized AUMs. Second, the analysis estimates the impact on each permittee in the proposed designation, if the impacts were evenly distributed. While it may not be likely that impacts are evenly distributed, this approach provides useful information to understand the potential range of impacts on ranchers, in the absence of more specific information.

(102) *Comment:* The environmental assessment only discusses cultural impacts to Tribes. The Southwest has a diverse mix of cultures that have already been significantly impacted by owl protections.

Our Response: The commenter did not provide sufficient rationale to explain why he or she believes that cultures have been significantly impacted by owl protections. Section 3.10 was added to the environmental assessment to address environmental justice and social conditions.

(103) *Comment:* The purpose of a NEPA document is to disclose impacts not to say that additional consultations are a result of designation of critical habitat when added to, "the effects of existing section 7 consultations for other species and existing land management plans and policies." While this discloses there will be cumulative effects it does not say what those effects will be or have been.

Our Response: The cumulative effects analysis (section 3.11) was edited to clarify that critical habitat designation is unlikely to result in additional project modifications compared to the existing condition (*i.e.* project modification resulting from consultation on effects to the species). Cumulative effects from any of the critical habitat designation alternatives are therefore improbable.

(104) *Comment:* The prior economic analysis did not consider all relevant costs.

Our Response: A new economic analysis was completed to address this final designation. The previous economic analysis is not reflective of this designation or our current approach for analyzing economic impacts.

(105) *Comment:* Current owl stipulations attached to Federal oil and gas leases and other permitted activities prohibit activities between March 31 and August 31 each year. The proposed critical habitat designation is part of the growing list of barriers to Federal land access for the energy industry and will effectively prohibit oil and gas reserves

from being recovered. Proposed critical habitat in Utah should be excluded from the final designation because of the "other relevant impact" to our Nation's domestic energy production, and the resulting effects to our economy and National Security.

Our Response: As detailed in our economic analysis, since the listing of the owl, there have been 2 formal and 34 informal consultations with five Federal agencies. Based upon these and other data analyzed in our economic analysis and environmental assessment, we conclude that this rule is not expected to significantly affect energy supplies, distribution, or use (see also "Executive Order 13211" section below).

We have a very good consultation history for the owl; thus, we can describe the kinds of actions that have undergone consultations. Within the proposed critical habitat designation in New Mexico, there was only one informal consultation (the Department of Energy) in 1994 and no formal consultation; within Utah, there were 34 informal and 2 formal consultations. Since the owl was federally listed, none of the projects related to oil and gas production have been stopped, delayed, or altered in a significant way resulting from section 7 consultation. Using the economic analysis and our consultation history, we find that impacts to our "Nation's domestic energy production" resulting from the designation of critical habitat will not be significant and should have no effect on National Security.

(106) *Comment:* The Coalition of Arizona and New Mexico Counties suggests that all FS lands suitable for timber harvest and all Federal lands identified as having high risk for catastrophic wildfire be excluded from designated critical habitat.

Our Response: We recognize the risk of catastrophic wildfire to areas within the WUI and have excluded 157 project areas that were included in a programmatic consultation completed by the Region 3 of the FS and the Penasco WUI project area that we evaluated under a separate opinion (see "Exclusions Under Section 4(b)(2)" section below). Projects covered by the programmatic consultation and the separate opinion for the Penasco project area were determined by the FS as areas "at imminent risk of catastrophic wildfire" (Service 2001 and Service 2002). We are designating protected and restricted habitat based upon information in the Recovery Plan (Service 1995), which would include "lands suitable for timber harvest" because these areas are essential to the conservation of the owl.

In 1996, the 11 National Forest Plans in the Southwestern Region of the FS were amended to add specific standards and guidelines for the owl, grazing, and other management prescriptions (Forest Plan Amendments) (FS 1995, 1996b). Standards and guidelines are the bounds and constraints within which all FS management activities are to be carried out in achieving Forest Plan objectives (FS 1996b, p. 87). The language and intent of the Forest Plan Amendments were to incorporate the recommendations of the

Recovery Plan (Service 1995) to provide primary direction for site-specific project design (FS 1995) (*i.e.*, the Forest Plan Amendments are applied through project level environmental analysis and decisions). It is important to note that the FS indicated the designation of critical habitat within protected or restricted habitat is not likely to result in a regulatory burden substantially above that already in place because they are already managing for the habitat by following their Forest Plan Amendments (K. Menasco, USDA FS, pers. comm., 2003).

Issue 4: Tribal Issues

(107) *Comment:* Why are Tribal lands included in the proposed designation?

Our Response: In our proposal to designate critical habitat, we found that lands of the Mescalero Apache, San Carlos Apache, and Navajo Nation likely met the definition of critical habitat with respect to the owl, and portions of those lands were proposed as critical habitat. However, we worked with the tribes in developing measures adequate to conserve owls on Tribal lands. The Mescalero Apache Tribe, San Carlos Apache Tribe, and Navajo Nation completed management plans for the owl that are generally consistent with the Recovery Plan. We have excluded all Tribal lands from final critical habtiat [sic] for the owl because the benefits of their exclusion outweigh the benefits of including these lands within the designation (see "Exclusions Under Section 4(b)(2)" section).

(108) *Comment:* The Mescalero Apache Tribe believes the Service did not adequately consider how the designation of critical habitat on Tribal lands will benefit the owl or how the designation will impact the Mescalero Apache Reservation.

Our Response: We did not include the Mescalero Apache or other Tribal lands in the final designation of critical habitat for the owl.

(109) *Comment:* The San Carlos Apache Tribe owl management plan is not an adequate basis for the Service to exclude their lands from designated critical habitat.

Our Response: We have determined that the conservation measures and benefits provided the owl and it [sic] habitat by the San Carlos Apache Tribe's managment [sic] plan, along with the cooperative partnership between the Tribe and the Service provide sufficient justification for excluding the Tribal lands from the final designation of critical habitat for the owl (See Exclusions Under Section 4(b)(2) section below).

(110) *Comment:* The Service's exclusion of the White Mountain Apache, Jicarilla Apache, and portions of the San Carlos Apache (Malay Gap) Tribal lands is not legally sound, given that *Center for Biological Diversity* v. *Norton* dismissed the Service's conclusions that additional special management is not required if adequate management or protection is currently in place.

Our Response: The White Mountain Apache, Jicarilla Apache, and portions of the San Carlos Apache (Malay Gap) lands are not included within the current designation because they were not proposed as critical habitat for the owl (65 FR 45336). We find these lands are not essential to the conservation of the species.

(111) *Comment:* The Service's section 4(b)(2) analysis considers the potential adverse impact of designating critical habitat on working relationships; however, such impacts should not take precedence over all other considerations (*i.e.*, the benefits of including areas within the designation). Where an area is essential to the conservation of the species, adverse impacts should be considered, but should not be the sole reason for excluding the area.

Our Response: We agree. That is why we are required to balance the benefits of including an area in a critical habitat designation against the benefits of excluding an area from that designation (see "Exclusions Under Section 4(b)(2)" section).

(112) *Comment:* Did the Service: (1) Receive an unredacted version of the San Carlos Apache owl plan; (2) has the Tribal council or the Service approved the plan; and (3) for what time period is the plan effective?

Our Response: We received a redacted version of the San Carlos Apache managment [sic] plan for the owl. The Tribal Council has approved the plan, and there is no expiration date for the plan.

(113) *Comment:* It is not clear what law or regulation occasioned the Tribes to prepare and implement their owl management plans, or whether they are legally required to continue implementing these plans with or without critical habitat.

Our Response: The plans were voluntarily prepared with technical assistance from the Service. It is our understanding that the Tribes will continue implementing the plans and revise them as appropriate.

(114) *Comment:* The Categorical exclusion of Tribes from the designation is inconsistent with the requirements of section 4 of the Act.

Our Response: We have carefully examined the merits of excluding Tribal lands from this designation on a case-by-case basis. Please see "Exclusions Under Section 4(b)(2)" section for our detailed analysis and rationale for exclusions of tribal lands from this designation.

(115) *Comment:* The Southern Ute Indian Tribe believes that the establishment and maintenance of strong working relationships with all Tribes warrants the exclusion of all Tribal lands from the designation. The Hualapai Tribe indicated that it is inappropriate for the Service to designate critical habitat on Indian lands, where Tribes have the expertise, capacity, and regulations to protect endangered species on their lands. The BIA Southwest Region commented that the existing owl management plan

for the Mescalero Apache has protected and effectively conserved the species on Tribal lands; including this area as critical habitat would undermine the Tribe's status as a sovereign nation, increase workloads for the Tribe and BIA, preclude commercial use of the forest, and contribute to the increase risk of catastrophic wildfire. The BIA also indicated that designating critical habitat on Tribal lands would adversely affect the Service's working relationship with all Tribal governments.

Our Response: After conducting an analysis under section 4(b)(2) of the Act, we concluded that the benefits of excluding the San Carlos Apache, Mescalero Apache, and Navajo Nation lands from the final designation of critical habitat for the owl outweigh the benefits to the owl and its habitat from their inclusion. Accordingly, we have excluded all Tribal lands from this final designation of critical habitat for the owl.

(116) *Comment:* The Navajo Nation Forest Management Plan and owl plan provide no documented benefit to the species because neither plan complies with the Recovery Plan.

Our Response: Please see our discussion of the Navajo Nation Forest Management Plan in the "Exclusions Under Section 4(b)(2)" section below.

(117) *Comment:* Contrary to statements in the draft environmental assessment, there are no known owl nest or roost sites, no known populations, and no

known occupied areas of any sort on the Jicarilla Apache Nation's lands.

Our Response: The data concerning owl occurrences on the lands of the Jicarilla Apache Nation that is currently within Service files and the supporting record for this indicate that there are only two known records for the owl on the Jicarilla Apache Nation's lands. Both records are from the 1980s. Since then, extensive surveys have been conducted, but did not locate any additional owls. These lands are not considered essential to the conservation of the owl. The description of alternatives in the environmental assessment was edited to correct this error.

Issue 5: Other Relevant Issues

(118) *Comment:* The designation of critical habitat would constitute a "government land grab." The owl is merely the vehicle by which environmental groups plan to stop harvest of "old growth" forests.

Our Response: The designation of critical habitat has no effect on non-Federal actions taken on private or State lands, even if the land is within the mapped boundary of designated critical habitat, because these lands were specifically excluded from the designation. We believe that the designation of critical habitat for the owl does not impose any additional restrictions on land managers/owners within those areas designated as critical habitat, beyond those imposed due to the listing of the owl. All landowners are responsible to ensure that their actions do

not result in the unauthorized take of a listed species, and all Federal agencies are responsible to ensure that the actions they fund, permit, or carry out do not result in jeopardizing the continued existence of a listed species, regardless of where the activity takes place.

We also note that this designation is consistent with the Recovery Plan. While the Recovery Plan does not explicitly protect "old-growth" forests, it does recommend that large trees and other forest attributes that may be found in "old-growth" forests be retained to the extent practicable within certain forest types. Large trees are important ecosystem components, have been much reduced in the Southwest, and take many decades to replace once they are lost.

As detailed below, the 11 National Forest Plans in the Southwestern Region of the FS were amended in 1996 to add specific standards and guidelines for the owl, grazing, and old-growth (Forest Plan Amendments) (FS 1995, 1996b). The FS has previously indicated that the Forest Plan Amendments are nondiscretionary actions that must be implemented by each of the 11 National Forests in the Southwestern Region (Service 2004). We also note that site-specific decisions must be consistent with the applicable Forest Plan at the time they are issued, and fall under the authority of the National Forest Management Act of 1976 (36 CFR 219).

(119) *Comment:* The owl by its very name is not exclusive to the United States. Typical of most Mexican fauna entering the United States, it appears rarer than it really is. Therefore, it is Mexico's duty to protect it.

Our Response: The Mexican spotted owl was determined to be threatened throughout its range in the United States and Mexico, and we are obligated by statue (the Act) to provide regulatory protection for the species, if warranted, regardless of the protection measures afforded the species in Mexico. Furthermore, according to CFR 402.12(h) "Critical habitat shall not be designated within foreign countries or in other areas outside of the United States jurisdiction", and shall only be designated for a listed species in the boundaries of the United States to the maximum extent prudent and determinable.

(120) *Comment:* Why were the public hearings in Utah held in the southwestern part of the State when most of the critical habitat is in the southeastern portion?

Our Response: The Act requires that at least one public hearing be held if requested. We held six public hearings throughout the four state region. We selected Cedar City, Utah, for a hearing location because of its proximity to four of the five proposed critical habitat units in the State.

(121) *Comment:* The designation of critical habitat abrogates the Treaty of Guadalupe Hidalgo. You do not have constitutional authority to do so.

Our Response: The Treaty of Guadalupe Hidalgo resulted in grants of land made by the Mexican government in territories previously appertaining to Mexico, and remaining for the future within the limits of the United States. These grants of land were respected as valid, to the same extent that the same grants would have been valid within the territories if the grants of land had remained within the limits of Mexico. The designation of critical habitat has no effect on non-Federal actions taken on private land (*e.g.*, land grants), even if the private land is within the mapped boundary of designated critical habitat because we have not included State and private lands in this designation of critical habitat for the owl by definition. Critical habitat has possible effects on activities conducted by non-Federal entities only if they are conducting activities on Federal lands or that involves Federal funding, a Federal permit, or other Federal action (*e.g.*, grazing permits). If such a Federal nexus exists, we will work with the applicant and the appropriate Federal agency to ensure that the project can be completed without jeopardizing the species or adversely modifying critical habitat. Therefore we do not believe that designation of critical habitat for the owl abrogates any treaty of the United States.

(122) *Comment:* Many commenters were concerned that the designation of critical habitat would prohibit recreational and commercial activities from taking place.

Our Response: As stated in the economic analysis and this final rule, we do not believe the designation of critical habitat will have significant adverse economic effects on any landowner above and beyond the effects of listing of the species. It is correct that projects funded, authorized, or carried out by Federal agencies, and that may affect critical habitat, must undergo consultation under section 7 of the Act. This provision includes commercial activities. However, as stated elsewhere in this final rule, we do not expect the result of those consultations to result in any restrictions that would not be required as a result of listing the owl as a threatened species.

Designation of critical habitat does not preclude commercial projects or activities such as riparian restoration, fire prevention/management, or grazing if they do not cause an adverse modification of critical habitat. We will work with Federal agencies that are required to consult with us under section 7 of the Act to ensure that land management will not adversely modify critical habitat.

(123) *Comment:* The Federal Highway Administration (FHA) requested that we exclude roadways and adjacent rights-of-way from the final designation because of economic impacts and delays. These areas typically provide poor or marginal habitat for the owl.

Our Response: We did not exclude adjacent rights-of-way from the final designation, but note that existing roads, other paved areas, and areas that do not contain one or more primary constituent

elements are not considered critical habitat. If adjacent lands meet the definition of protected or restricted habitat and contain primary constituent elements, then they would still be considered critical habitat. The additional administrative costs for consultation are included in the economic analysis. We do not anticipate delays associated with the FHA projects and the designation of critical habitat. Compliance with section 7 could range from simple concurrence, which is usually completed within 30 days, to formal consultation, which could take up to 135 days. Formal consultation would only be necessary if the action would have an adverse effect on the critical habitat. Designation of critical habitat in areas essential to the conservation of the owl is not likely to result in a regulatory burden substantially above that already in place due to the presence of the species. To streamline the regulatory process, the FHA may request section 7 consultation at a programmatic level for activities that would result in adverse effects to critical habitat.

Adjacent rights-of-way contain habitat essential to the conservation of the owl if they contain one or more primary constituent elements. Therefore, we cannot justify excluding these particular areas from the designation.

(124) *Comment:* Impacts to international migratory waterfowl treaties are not addressed by the Service in the economic analysis or environmental assessment.

Our Response: We do not believe that the designation of critical habitat for the owl impacts internaltional [sic] migratory waterfowl treaties and consequently did not take these treaties into consideration when conducting our economic or environmental analyses. Further, the commenter did not provide any data for us to consider and did not adequately explain the rationale why international migratory waterfowl treaties would be affected by the critical habitat designation.

Summary of Changes From the Proposed Rule

Based upon Our Review of the public comments, the economic analysis, environmental assessment, issues addressed at the informational meeting and any new relevent [sic] information that may have become available since the publication of the proposal, we reevaluated our critical habitat proposal and made changes as appropriate. Other than minor clarifications and incorporation of additional information on the species' biology, this final rule differs from the proposal as follows:

(1) We attempted to clarify the definitions and use of protected and restricted habitat and the attributes of primary constituent elements of critical habitat in this rule.

(2) In the proposed rule we stated that all administratively reserved lands (*i.e.*, lands that have been administratively withdrawn from commercial activities, such as wilderness or research natural

areas) would be considered critical habitat and included "designated" wilderness areas.

(3) We modified some of our critical habitat units based upon information submitted during the public comment period. Some critical habitat units have been removed from the designation because we determined, based on the best available information, that they did not contain areas essential to the conservation of the owl. The majority of refinements were conducted to remove, to the extent possible, those areas that did not contain protected or restricted habitat and primary constituent elements.

(4) The boundary of Unit BR-W-7 in Arizona was discovered to be mapped incorrectly. We have changed the boundary for this unit and have verified the boundaries for all units to ensure that they are correct;

(5) We excluded 157 WUI project areas and the Penasco WUI project area on FS lands in Arizona and New Mexico because the benefits of excluding these lands outweigh the benefits of their inclusion.

(6) No Tribal lands are designated, including Canyon de Chelly and Navajo National Monument administered by the NPS, because the benefits of excluding the lands from the designation outweigh the benefits of their inclusion pursuant to section 4(b)(2) of the Act;

(7) Fort Carson, Colorado, Fort Huachuca, Arizona, and the U.S. Naval Observatory Flagstaff

Station, Arizona, are excluded because they have final INRMPs and are consistent with the 2004 National Defense Authorization Act (Pub. L. 108-136, November 2003), Section 318, Military Readiness and Conservation of Protected Species which amended section 4(a)(3) of the Act;

(8) Fort Wingate Army Depot, New Mexico, is excluded from the designation because it does not contain areas that are essential to the conservation of the species; and [sic]

Critical Habitat

Critical habitat is defined in section 3(5)(A) of the Act as – (i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection and; (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. The term "conservation," as defined in section 3(3) of the Act, means "the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary" (*i.e.*, the species is recovered and removed from the list of endangered and threatened species).

Section 4(b)(2) of the Act requires that we base critical habitat designation on the best scientific and commercial data available, taking into consideration the economic impact, impact on national security, and any other relevant impact, of specifying any particular area as critical habitat. We may exclude areas from critical habitat designation if we determine that the benefits of exclusion outweigh the benefits of including the areas as critical habitat, provided the exclusion will not result in the extinction of the species.

In order to be included in a critical habitat designation, the habitat must first be "essential to the conservation of the species." Critical habitat designations identify, to the extent known using the best scientific and commercial data available, habitat areas that provide essential life cycle needs of the species (*i.e.*, areas on which are found the primary constituent elements, as defined at 50 CFR 424.12(b)).

Section 4 requires that we designate critical habitat at the time of listing and based on what we know at the time of the designation. When we designate critical habitat at the time of listing or under court-ordered deadlines, we will often not have sufficient information to identify all areas of critical habitat. We are required, nevertheless, to make a decision and thus must base our designations on what, at the time of designation, we know to be critical habitat.

Within the geographical area occupied by the species, we will designate only areas currently known to be essential. We will not speculate about what areas might be found to be essential if better information became available, or what areas may become essential over time. If the information available at the time of designation does not show that an area provides essential life cycle needs of the species, then the area should not be included in the critical habitat designation.

Our Regulations state that, "The Secretary shall designate as critical habitat areas outside the geographic area presently occupied by the species only when a designation limited to its present range would be inadequate to ensure the conservation of the species" (50 CFR 424.12(e)). Accordingly, when the best available scientific and commercial data do not demonstrate that the conservation needs of the species require designation of critical habitat outside of occupied areas, we will not designate critical habitat in areas outside the geographic area occupied by the species.

The Service's Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), and Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (P.L. 106-554; H.R. 5658) and the associated Information Quality Guidelines issued by the Service, provide criteria, establish procedures, and provide guidance to ensure that decisions made by the Service

represent the best scientific and commercial data available. They require Service biologists to the extent consistent with the Act and with the use of the best scientific and commercial data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat. When determining which areas are critical habitat, a primary source of information should be the listing package for the species. Additional information may be obtained from a recovery plan, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, and biological assessments or other unpublished materials (*i.e.* gray literature).

Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the species. For these reasons, all should understand that critical habitat designations do *not* signal that habitat outside the designation is unimportant or may not be required for recovery. Areas outside the critical habitat designation will continue to be subject to conservation actions that may be implemented under Section 7(a)(1) and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard and the Section 9 take prohibition, as determined on the basis of the best available information at the time of the action. We specifically anticipate that federally funded or assisted projects affecting listed species

outside their designated critical habitat areas may still result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning efforts if new information available to these planning efforts calls for a different outcome.

Primary Constituent Elements

In accordance with sections 3(5)(A) and 4(b) of the Act and regulations at 50 CFR 424.12, we are required to base critical habitat designation on the best scientific and commercial data available and to consider those physical and biological features (primary constituent elements) that are essential to conservation of the species and that may require special management considerations or protection. Such general requirements include, but are not limited to – space for individual and population growth, and for normal behavior; food, water, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, or rearing of offspring; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

The primary constituent elements essential to the conservation of the owl include those physical and biological features that support nesting, roosting, and

foraging. These elements were determined from studies of owl behavior and habitat use throughout the range of the owl (see "Background" section above). Although the vegetative communities and structural attributes used by the owl vary across the range of the subspecies, they consist primarily of mixed conifer forests or canyons. The mixed-conifer, pine-oak communities and canyon habitat appear to be the most frequently used community throughout most portions of the subspecies' range (Skaggs and Raitt 1988; Ganey and Balda 1989, 1994; Gutierrez and Rinkevich 1991, Service 1995). Although the structural characteristics of owl habitat vary depending on uses of the habitat (*e.g.*, nesting, roosting, foraging) and variations in the plant communities over the range of the subspecies, some general attributes are common to the subspecies' life-history requirements throughout its range.

Protected areas include all known owl sites (PACs), all areas in mixed-conifer and pine-oak types with greater than 40 percent slopes where timber harvest has not occurred in the past 20 years and administratively reserved lands, such as Wilderness Areas or Research Natural Areas. Restricted habitat includes mixed-conifer forest, pine-oak forest, and riparian areas adjacent to or outside of protected areas. These habitat areas are used by resident (*i.e.*, territorial) owls for foraging, since the 600 acres recommended for PACs include on average 75 percent of nighttime foraging locations of radioed birds. The restricted areas also provide habitat for non-territorial

birds (often referred to as "floaters"), to support dispersing juveniles, and to provide replacement nest/roost habitat on the landscape through time. For example, restricted habitat can succeed to protected habitat by replacing protected habitat that has been lost by fire or decay, thereby providing additional protected habitat that will assist in the conservation of the owl. These areas are essential to the conservation of the species because they encompass habitat that is required by the owl to complete its life cycle and are needed for recovery. Other forest and woodland types (ponderosa pine, spruce-fir, pinyon-juniper, and aspen) are not expected to provide nesting or roosting habitat for the owl (except when associated with rock canyons). Thus, activities in areas defined as other forest and woodland types would not require section 7 consultation unless specifically delineated within PACs.

The minimum mapping unit for this designation does not exclude all developed areas, such as buildings, roads, bridges, parking lots, railroad tracks, other paved areas, the lands that support these features, and other lands unlikely to contain the primary constituent elements. Federal actions limited to these areas would not trigger a section 7 consultation, unless they affect protected or restricted habitat and one or more of the primary constituent elements in adjacent critical habitat.

Canyon habitats used for nesting and roosting are typically characterized by cooler conditions found in steep, narrow canyons, often containing crevices,

ledges, and/or caves. These canyons frequently contain small clumps or stringers of ponderosa pine, Douglas-fir, white fir, and/or pinyon-juniper. Deciduous riparian and upland tree species may also be present. Adjacent uplands are usually vegetated by a variety of plant associations including pinyon-juniper woodland, desert scrub vegetation, ponderosa pine-Gamble oak, ponderosa pine, or mixed-conifer. Owl habitat may also exhibit a combination of attributes between the forested and canyon types. Section 7 consultation may be required in adjacent vegetated uplands when there are one or more primary constituent elements present within these areas that meet the definition of protected or restricted habitat. The primary constituent elements for these adjacent vegetated uplands are identified below under forest habitats. We anticipate that Federal agencies will use their expertise and discretion in determining whether adjacent vegetated lands (*i.e.*, rims or mesa tops) contain one or more of the primary constituent elements.

Space for Individual and Population Growth and Normal Behavior

Owls have been recorded in the Arizona, Colorado, New Mexico, and Utah, particularly mature mixed-conifer forests, pine-oak forests, and canyon habitat (Skaggs and Raitt 1988; Ganey *et al.* 1988; Ganey and Balda 1989a; Gutierrez and Rinkevich 1991; Willey 1993; Fletcher and Hollis 1994; Seamans and Gutierrez 1995; Gutierrez *et al.* 1995; Ward *et al.*

1995; Geo-Marine 2004), primarily above 6,000 ft and below 9,350 ft elevation (Zwank *et al.* 1994; Seamans and Gutierrez 1995; Tarango *et al.* 1997; Young *et al.* 1998; Geo-Marine, Inc. 2003, 2004). These vegetative communities appear to be especially important (Ganey and Balda 1989; 1994; Fletcher 1990; Zwank *et al.* 1994; Seamans and Gutierrez 1995; Grubb *et al.* 1997; Tarango *et al.* 1997; Young *et al.* 1998; Geo-Marine, Inc. 2003, 2004). Slope angles range from 0 to 67 degrees (Tarango *et al.* 1997, Geo-Marine, Inc. 2003). Mature mixed-conifer forests, pine-oak forests, and canyon habitat are characterized by the presence of a variety of large trees, down and dead woody material, and a diversity of plant species and vegetation layers. These communities include, but are not limited to, Douglas-fir, white fir, limber pine, or blue spruce forest. Owls are also found in pine-oak, and in riparian forests dominated by various species of broadleaved deciduous trees and shrubs (Service 1995).

Steep narrow canyons sometimes associated with riparian forests or scattered trees are utilized by owls in southern Utah, northern Arizona, and northern New Mexico (Service 1995, Gutierrez and Rinkevich 1991). Canyon habitat is also found in southeastern New Mexico and southwest Texas. Owls have been documented using riparian drainages for nesting, roosting, and dispersal (Gutierrez and Rinkevich 1991; Willey 1998). Drainages throughout these areas concentrate available moisture, influencing the diversity and structure of the vegetation. Even small

sources of water such as tiny pools or puddles create humid conditions that may influence the use of an area by owls (Geiger 1965 *in* Gutierrez and Rinkevich 1991). In canyon habitats, riparian sites are characterized by various species of broadleaved deciduous trees and shrubs that typically grow bigger and occur in higher densities within the drainages.

Most owls are considered nonmigratory throughout their range. Research and monitoring (Zwank *et al.* 1994) have documented year-round occupancy of known home ranges (the area used by owls throughout the year). However, researchers have documented seasonal movements by owls. Some individuals occupied the same area year-round, some remained in the same general area but exhibited shifts in habitat use patterns, and some migrate considerable distances 12-31 miles (mi) (20-50 kilometers [km]) during the winter, generally migrating to more open habitat at lower elevations (Ganey and Balda 1989b; Willey 1993; Ganey *et al.* 1998). Bond *et al.* (2002) reported high site fidelity within eleven spotted owl territories in California, Arizona, and New Mexico following wildfires. Therefore, it is important that owls have home ranges of adequate size to provide for their life history requirements throughout the entire year.

Owl dispersal patterns have been documented. The onset of juvenile dispersal is sudden and in various directions (Arsenault *et al.* 1997; Willey and C. van Riper 2000). Juvenile dispersal takes place in September and October, with 85 percent leaving in September (Gutierrez *et al.* 1995; Arsenault *et al.*

1997; Willey and C. van Riper 2000). Ganey *et al.* (1998) found dispersing juveniles in a variety of habitats ranging from high-elevation forests to pinyon-juniper woodlands and riparian areas surrounded by desert grasslands. In Arizona, New Mexico, and Utah, owls were observed moving across open low desert landscapes between islands of suitable breeding habitat (Ganey *et al.* 1998; Arsenault *et al.* 1997; Willey 1998). Trees of appropriate size and spacing appear to be necessary for successful dispersal, but specific data describing this habitat structure are not available. Forsman *et al.* (1984) and Geo-Marine (2004) have reported high site fidelity by owls. Once dispersing male owls settle in a territory (the area defended by an owl), they rarely make additional movements outside of their home range. However, Arsenault *et al.* (1997) reported that three sub-adult females paired temporarily with adult males in their first summer, but left in the fall, suggesting that dispersal can continue through an owl's second year.

Sufficient habitat must occur within owl home ranges to provide vegetation of appropriate size and cover for roosting, sheltering, rearing, and foraging. The area must be adequate to provide for the needs of the owl on a year-round basis. Population growth can only occur if there is adequate habitat in an appropriate configuration to allow for the dispersal of owls across the landscape.

Food

Owls typically hunt from perches in trees with dense foliage using a perch-and-wait strategy; therefore, cover must be present within their home range for them to successfully hunt and survive (Service 1995). Their diverse diet includes small mammals, birds, lizards, and insects. The primary owl prey species are woodrats (*Neotoma* spp.), peromyscid mice (*Peromyscus* spp.), and microtine voles (*Microtus* spp.) (Service 1995; Young *et al.* 1997; Delaney *et al.* 1999; Seamans and Gutierrez 1999). Research indicates that woodrats are the most important prey species based on relative biomass (Young *et al.* 1997; Delaney *et al.* 1999; Grubb *et al.* 1999; Seamans and Gutierrez 1999). However, owls also utilize different groups of prey species on a seasonal basis. The density of annual plants and grasses, as well as shrubs, may be important to enhancing the owl's prey base (Ward and Block 1995; Delaney *et al.* 1999; Ward 2001). Vegetation communities which provide a diversity of structural layers and plant species likely contribute to the availability of prey for owls (Willey 1993; Gutierrez and Rinkevich 1991). Therefore, conservation of the owl should include consideration of the habitat needs of prey species, including structural and species diversity. Owl habitat must provide sufficient prey base and cover from which to hunt in an appropriate configuration and proximity to nest and roost sites.

Water

Owls are typically found in close proximity to water (Ganey and Balda 1989; Zwank *et al.* 1994; Ganey *et al.* 1998; Young *et al.* 1998; Geo-Marine 2004). Even small sources of water such as tiny pools or puddles create humid microsites that may influence an owl's use of an area (Geiger 1965 *in* Gutierrez and Rinkevich 1991). Gutierrez and Rinkevich (1991) reported that owls in Zion National Park were always in areas with some type of water source (*i.e.*, perennial stream, creeks, and springs, ephemeral water, small pools from runoff, reservoir emissions). Over 80 percent of the nests located by Forsman (1976) were within 984 ft (300 m) of permanent water. Barrows (1981) reported spotted owls roosting close to surface water in xeric sites in the San Bernardino National Forest. Geo-Marine (2004) reported finding most owls within 531 ft (162 m) from the nearest stream and all owls within 0.25 mi (0.4 km) of a stream. Tarango *et al.* (1997) reported cliff-roost site ranges of 33 ft (10 m) to 722 ft (220 m) from the nearest spring. Tree-roost sites ranged from 50 to 991 ft (15 to 302 m) to the nearest spring (Tarango *et al.* 1997). Owls have not been reported to drink water, so it is likely that owls meet much of their biological water requirements through the prey they consume. However, the presence of water does provide related benefits to owls as the availability of water may contribute to improved vegetation diversity and structure which improves cover and possibly prey availability.

Reproduction and Rearing of Offspring

Male and female owls began roosting together in February and began nesting in March (Zwank *et al.* 1994; Service 1995). Territories in mature mixed-conifer forests and pine-oak forests normally contain several potential nest and roost trees (Ganey and Balda 1989b; Ganey *et al.* 1999; Geo-Marine 2003, 2004). Canyon habitat normally contains several potential nesting cavities, crevices, and ledges. Hence, mature coniferous trees, riparian vegetation, and cavities, crevices, and rock ledges may be important criteria for habitat selection. Recent information throughout the owl's range indicate nests were predominately located in mature coniferous trees (mostly Douglas-fir) (Ganey 1988; Fletcher and Hollis 1994; Zwank *et al.* 1994; Seamans and Gutierrez 1995; Young *et al.* 1998; Peery *et al.* 1999; Ganey *et al.* 2000; Geo-Marine, Inc. 2003, 2004) and cavities, crevices and ledges in canyon habitat (Gutierrez and Rinkevich 1991).

Owls exhibit a high degree of site fidelity once territories (the area defended) and home ranges (the area used throughout the year) have been established (Forsman *et al.* 1984, Bond *et al.* 2002; Geo-Marine 2003, 2004). Therefore, it is important that habitat characteristics within territories and home ranges be maintained over time in order for them to remain suitable. This is important for established owl PACs, as well as new sites established by dispersing owls.

Large trees also provide protection against predators, cover for foraging, and thermal cover (Gutierrez 1985; Carey *et al.* 1992; Service 1995; Ganey and Dick 1995; Ganey *et al.* 1997; Delaney *et al.* 1999; Geo-Marine 2003, 2004). Predators include great horned owls (*Bubo virginianus*) and northern goshawk (Gutierrez *et al.* 1995). Owls may be particularly vulnerable to predation and other threats during and shortly after fledging (Geo-Marine 2003, 2004). Therefore, cover near nest sites may be important for young to fledge successfully. Conditions which promote the proliferation of great horned owls (reducing overstory and canopy cover) may contribute to this mortality factor. Habitat that provides for successful reproduction and rearing of young provides large trees, high basal area of large diameter trees (*e.g.*, in mixed-conifer about 140 sq ft basal area per ac, with 20 or more trees per ac that are 18 in dbh or greater), high canopy cover (*e.g.*, 40 or greater), uneven aged trees (*e.g.*, 3 or more age classes), multistory layers and high volume of down and dead woody material of adequate size to provide nesting structures in proximity to foraging, roosting, sheltering and dispersal habitats, in addition to adequate cover for protection from climatic elements and predators in an appropriate configuration in relation to the nest site.

We determined the primary constituent elements for the owl from studies of their habitat requirements (see "Background" section above) and the information provided in the Recovery Plan and references therein

(*e.g.*, Skaggs and Raitt 1988; Ganey *et al.* 1988; Ganey and Balda 1989a; Gutierrez and Rinkevich 1991; Willey 1993; Fletcher and Hollis 1994; Seamans and Gutierrez 1995; Service 1995; Gutierrez *et al.* 1995; Recovery Plan; Ward *et al.* 1995; Willey 1998; Geo-Marine 2004). Since owl habitat can include both canyon and forested areas, we identified primary constituent elements in both areas.

We have made some changes to the description of the primary constitute elements listed in the proposed rule in order to make them easier to understand; however, we did not alter their meaning. The primary constituent elements which occur for the owl within mixed conifer, pine-oak, and riparian forest types that provide for one or more of owl's habitat needs for nesting, roosting, foraging, and dispersing are in areas defined by:

A. Primary constituent elements related to forest structure:

(1) a range of tree species, including mixed conifer, pine-oak, and riparian forest types, composed of different tree sizes reflecting different ages of trees, 30 percent to 45 percent of which are large trees with a trunk diameter of 12 inches (0.3 meters) or more when measured at 4.5 feet (1.4 meters) from the ground;

(2) a shade canopy created by the tree branches covering 40 percent or more of the ground; and

(3) large dead trees (snags) with a trunk diameter of at least 12 inches (0.3 meters) when measured at 4.5 feet (1.4 meters) from the ground.

B. Primary constituent elements related to maintenance of adequate prey species:

(1) High volumes of fallen trees and other woody debris;

(2) A wide range of tree and plant species, including hardwoods; and

(3) Adequate levels of residual plant cover to maintain fruits, seeds, and allow plant regeneration.

The forest habitat attributes listed above usually are present with increasing forest age, but their occurrence may vary by location, past forest management practices or natural disturbance events, forest type, productivity, and plant succession. These characteristics may also be observed in younger stands, especially when the stands contain remnant large trees or patches of large trees from earlier stands. Certain forest management practices may also enhance tree growth and mature stand characteristics where the older, larger trees are allowed to persist.

Steep-walled rocky canyonlands are typically within the Colorado Plateau RU, but also occur in other RUs. Canyon habitat is used by owls for nesting, roosting, and foraging and includes landscapes dominated by vertical-walled rocky cliffs within complex watersheds, including many tributary side

canyons. These areas typically include parallel-walled canyons up to 1.2 mi (2 kilometers (km)) in width (from rim to rim), with canyon reaches often 1.2 mi (2 km) or greater, and cool north-facing aspects. Rock walls must include caves, ledges, and fracture zones that provide protected nest and roost sites. Breeding sites are located below canyon rims; however, it is known that owls use areas outside of the canyons (*i.e.*, rims and mesa tops). Owls nest and roost primarily on cliff faces using protected caves and ledges, and forage in canyon bottoms, on cliff faces and benches, and along canyon rims and adjacent lands. Although it is difficult to rely upon vegetation alone to identify canyon habitat, these areas frequently contain small clumps or stringers of mixed-conifer, ponderosa pine, pine-oak, pinyon-juniper, and/or riparian vegetation.

C. Primary constituent elements related to canyon habitat include one or more of the following:

(1) presence of water (often providing cooler and often higher humidity than the surrounding areas);

(2) clumps or stringers of mixed-conifer, pine-oak, pinyon-juniper, and/or riparian vegetation;

(3) canyon wall containing crevices, ledges, or caves; and

(4) high percent of ground litter and woody debris.

The primary constituent elements identified above provide a qualitative description of those

physical and biological features necessary to ensure the conservation of the owl. The range of quantitative estimates (*e.g.*, basal area, canopy closure, *etc.*) is not provided by the primary constituent elements because these vary greatly over the range of the owl. We acknowledge that if the range of these estimates were provided as part of a critical habitat designation, they could be revised if new data became available (50 CFR 424.12(g)); however, the process of new rulemaking can take years (*see* 50 CFR 424.17), as opposed to reinitiating and completing a consultation, which takes less than a few months (*see* 50 CFR 402.14). We note that the Recovery Plan and forthcoming revision provide up-to-date information for agencies to consider when determining whether a proposed project "may affect" designated critical habitat. Our existing consultation policy likewise uses the Recovery Plan to evaluate the effects of proposed projects on the owl. Additionally, formal consultation provides an up-to-date biological status of the species or critical habitat (*i.e.*, environmental baseline) which is used to evaluate a proposed action. Consequently, we believe it is more prudent to pursue the establishment of quantitative estimates (*e.g.*, basal area, canopy closure, *etc.*) through consultation. When requested, the Service will provide technical assistance in these matters.

Criteria for Identifying Critical Habitat Units

In designating critical habitat for the owl, we reviewed the overall approach to the conservation of the species undertaken by local, State, Tribal, and

Federal agencies and private individuals and organizations since the species' listing in 1993. We also considered the features and overall approach identified as necessary for recovery, as outlined in the species' Recovery Plan and information in our supporting record (*e.g.*, Recovery Plan revision in prep). We reviewed the two previous final critical habitat rules (June 6, 1995, 60 FR 29914; February 1, 2001, 66 FR 8530) for the owl, habitat requirements and definitions described in the Recovery Plan, and habitat and other information provided during the comment periods, as well as utilizing our own expertise and other owl researchers. We also reviewed data in our files that were submitted during section 7 consultations and reports submitted in relation to section 10(a)(1)(A) recovery permits, peer-reviewed articles, agency reports and data provided by FS and BLM, and regional and statewide GIS coverages of PACs or other owl occurrence records.

We considered currently suitable habitat, large contiguous blocks of habitat, occupied habitat, rangewide distribution, the need for special management or protection, and adequacy of existing regulatory mechanisms when identifying critical habitat units. For the current designation, we relied primarily on the Recovery Plan to provide guidance. We are including specific protected and restricted areas, (as defined in the Recovery Plan and the "Primary Constituent Elements" section above), because they contain one or more primary constituent elements. Some lands containing these characteristics were

excluded if they were not essential to the conservation of the owl or if the benefits of their exclusion from critical habtiat [sic] for the owl outweighed the benefits of their inclusion (see discussion below).

Although some State and private lands likely support mid- and higher-elevation forests that support owls and owl nesting and roosting habitat, the overwhelming majority of owl records and, therefore its range in the United States, are from Federal and Tribal lands. Therefore we do not consider State and private lands essential to the conservation of the species. As such, we are not designating these areas as critical habitat. Where feasible, we mapped critical habitat boundaries so as to exclude State and private lands. Where this was not possible, State and private areas are not included by definition in this designation. The overwhelming majority of owl records are from Federal and Tribal lands, indicating that those lands are essential to the species' recovery.

Critical Habitat Designation

The designated critical habitat constitutes our best assessment of areas that are essential to the conservation of the owl and that may require special management or protection. The areas designated are within the geographical area occupied by the species because the critical habitat designation is devised around the majority of known owl nesting sites. The designation includes both protected and restricted habitat, as defined the Recovery Plan, and contains

the primary constituent elements as identified herein. We have included these areas in the designation based on information contained within the Recovery Plan that finds them to be essential to the conservation of the species because they currently possess the necessary habitat requirements for nesting, roosting, foraging, and dispersal. Critical habitat units are designated in portions of McKinley, Rio Arriba, Sandoval, and Socorro counties in New Mexico; Apache, Cochise, Coconino, Graham, and Pima counties in Arizona; Carbon, Emery, Garfield, Grand, Iron, Kane, San Juan, Washington, and Wayne counties in Utah; and Custer, Douglas, El Paso, Fremont, Huerfano, Jefferson, Pueblo, and Teller counties in Colorado. Detailed digital files of each unit can be obtained by contacting the New Mexico Ecological Services Field Office (see **ADDRESSES** section).

We did not designate some areas that are known to have widely scattered owl sites, low owl population densities, and/or marginal habitat quality, which are not considered to be essential to this species' conservation. These areas include Dinosaur National Park in northwest Colorado; Mesa Verde National Park, Ute Mountain Ute Reservation, Southern Ute Reservation, other FS and Bureau of Land Management (BLM) land in southwest Colorado and central Utah; and the Guadalupe and Davis Mountains in southwest Texas. We also did not include isolated mountains in northwestern Arizona, such as Mount Trumbull, due to their small size, isolation, and lack of information about owls in the area.

Fort Wingate Army Depot, New Mexico, was proposed as critical habitat for the owl. However, during the development of this final designation we found that the Depot has been closed since 1988 and part of the lands have been transferred to the Navajo and Zuni Tribes (Ferguson 2000; Department of Defense 2004). Our understanding is that the first transfer of lands from the Army to the Tribes occurred in 2000, and the rest of the lands will be transferred following remediation of contaminants (J. Jojola, BIA, pers. comm. 2004). More importantly, these lands are within critical habitat unit CP-2 that was adjusted following comments by the Cibola National Forest that the western part of the unit contains habitat that is not suitable (*i.e.*, pinyon-juniper and ponderosa pine without oak). Accordingly, we do not believe these lands contain protected or restricted habitat. For these reasons, we conclude that Fort Wingate is not essential to the conservation of the species, and these lands are not designated as critical habitat.

As reported in the proposed rule (65 FR 45336), the Southern Ute Reservation has not supported owls historically, and our assessment revealed that the Southern Ute Reservation does not support habitat essential to the species' conservation. Thus, we are not designating these lands as critical habitat because they are not essential to the conservation of the owl.

We are not designating lands of the Ute Mountain Ute Tribe as critical habitat. Due to the low owl

population density and isolation from other occupied areas in Colorado, New Mexico, and Utah, the owl habitat on Tribal lands in southwestern Colorado is not believed to be essential for the conservation of the species. Thus, we are not designating these lands as critical habitat because they are not essential to the conservation of the owl. Owls in these areas will retain the other protections of the Act, such as the prohibitions of section 9 and the prohibition of jeopardy under section 7.

In addition, other Tribal lands including Picuris, Taos, and Santa Clara Pueblos in New Mexico and the Havasupai Reservation in Arizona may have potential owl habitat. However, the available information, although limited, on the habitat quality and current or past owl occupancy in these areas does not indicate that these areas are essential to the conservation of the owl. We also conclude that the Jicarilla Apache lands in New Mexico are not essential to the conservation of the owl because there are only two historic records of owls from their lands and no owls were documented during recent survey efforts (please refer to Our Response to Comment 117). Therefore, we are not designating these lands as critical habitat because they are not essential to the conservation of the owl.

Based upon comments and other information received, we revised the boundaries of proposed critical habitat for the owl to exclude those Federal lands that do not contain protected or restricted habitat. Further, because we have determined that

lands under State and private ownership are not essential to the conservation of the owl, these lands are not being designated as critical habitat for the owl. Nonetheless, the short amount of time allowed by the court to complete this designation and available resources did not allow us to conduct the fine-scale mapping necessary to physically exclude all of the smaller and widely scattered State and private parcels. Thus, some State and private lands remain within the mapped boundaries, but by definition, these lands are not included in the designation.

This critical habitat designation does not include Tribal lands; lands under State and private ownership; 157 WUI project areas on FS lands within Arizona and New Mexico that are at high risk of catastrophic wildfire and included in the 2001 programmatic WUI biological opinion and the Penasco WUI project area that we evaluated under a separate biological opinion on FS lands in New Mexico; Fort Wingate, New Mexico; Fort Carson, Colorado; Fort Huachuca, Arizona; the U.S. Naval Observatory Flagstaff Station, Arizona; and low-density areas and other areas determined to not be essential to the conservation of the species (see Exclusions Under Section 4(b)(2)" and "Summary of Changes to Proposed Rule" sections). Except for these WUI project areas, this critical habitat designation includes FS lands in New Mexico, Arizona, Utah, and Colorado, and some other Federal lands used by owls. The approximate Federal ownership within the boundaries of owl critical habitat is shown in Table 1 below.

TABLE 1. - CRITICAL HABITAT BY LAND OWNERSHIP AND STATE IN ACRES (HECTARES)

	Arizona	New Mexico	Colorado	Utah	Total
Forest Service	3,228,145	2,056,536	263,026	156,732	5,704,438
	(1,306,341)	(832,223)	(106,439)	(63,425)	(2,308,429)
Bureau of Land Management	1,541	2,171	59,299	362,135	425,145
	(623)	(879)	(23,997)	(146,546)	(172,045)
National Park Service	751,261	30,817	0	1,720,727	2,502,805
	(304,015)	(12,471)	(0)	(696,331)	(1,012,816)
Department of Defense	2,041	0	0	0	2,041
	(826)	(0)	(0)	(0)	(826)
Bureau of Reclamation	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)
Other Federal[a]	55	0	0	13,264	13,319
	(22)	(0)	(0)	(5,367)	(5,390)
Total	3,983,042	2,089,523	322,326	2,252,857	8,647,749
	(1,611,827)	(845,573)	(130,437)	(911,669)	(3,499,505)
Total critical habitat units	25	20	3	5	[b]52

[a] Includes land identified in the current Utah land ownership file as Forest Service or BLM; Federal land ownership is unclear.

[b] Critical habitat unit UGM-7 is shared by Arizona and New Mexico.

Critical Habitat Unit Descriptions

Table 2 summarizes the 52 units designated as critical habitat for the owl. These areas described below are essential for the conservation of the owl. We present brief descriptions of all units below:

TABLE 2. – APPROXIMATE AREA (ACRES AND HECTARES) OF CRITICAL HABITAT BY UNIT

Critical habitat unit	Acres	Hectares
BR-E-1a	54,185	21,927
BR-E-1b	212,882	86,148
BR-E-3	44,216	17,893
BR-E-4	13,753	5,566
BR-E-5	25,642	10,377
BR-E-7	3,048	1,233
BR-W-10	10,485	4,243
BR-W-11	233,228	94,381
BR-W-12	54,220	21,941
BR-W-13	54,735	22,150
BR-W-14	52,158	21,107
BR-W-15	50,844	20,575
BR-W-16	20,999	8,498
BR-W-18	179,439	72,614
BR-W-2	55,210	22,342
BR-W-3	15,580	6,305
BR-W-4	158,624	64,191
BR-W-5	118,940	48,132
BR-W-6	51,782	20,955
BR-W-7	17,791	7,200
BR-W-8	107,838	43,639
BR-W-9	63,259	25,599

CP-1	32,469	13,139
CP-10	918,847	371,832
CP-11	260,105	105,257
CP-12	402,895	163,040
CP-13	627,267	253,838
CP-14	941,068	380,824
CP-15	21,522	8,710
CP-2	161,557	65,378
SRM-C-1a	108,545	43,925
SRM-C-1b	110,045	44,532
SRM-C-2	103,735	41,979
SRM-NM-1	85,758	34,704
SRM-NM-11	12,459	5,042
SRM-NM-12	10,495	4,247
SRM-NM-4	57,297	23,187
SRM-NM-5a	14,100	5,706
SRM-NM-5b	70,728	28,622
UGM-10	562,988	227,826
UGM-11	144,790	58,593
UGM-12	17,359	7,025
UGM-13	238,092	96,349
UGM-14	55,533	22,473
UGM-15	22,286	9,019
UGM-17	10,914	4,416
UGM-2	33,794	13,675
UGM-3	135,287	54,747
UGM-5a	666,481	269,707
UGM-5b	295,680	119,654
UGM-6	63,451	25,677
UGM-7	863,344	349,371
Total	8,647,749	3,499,505

Unit SRM-C-1a. Pike's Peak Area, El Paso, Teller, and Fremont Counties, Colorado

This unit is located west of Colorado Springs on the flanks of Pike's Peak. It contains FS (Pike Ranger District, Pike/San Isabel National Forests) and BLM (Royal Gorge Field Office) lands in size. Areas with steep slopes (greater than 40 percent slope), canyons, and rocky outcroppings with mixed-coniferous forests are included in this unit. State, private, and military lands (Cheyenne Mountain Operations Center) are not designated as critical habitat.

Unit SRM-C-1b. Wet Mountain Area, Fremont, Custer, Pueblo and Huerfano Counties, Colorado

This unit is located in the Wet Mountains, west of the City of Pueblo. It contains primarily FS lands (San Carlos District, Pike/San Isabel National Forests). Areas with steep slopes (greater than 40 percent slope), canyons, and rocky outcroppings with dense, mixed-coniferous forests are included in this unit. State and private lands are not designated as critical habitat.

Unit SRM-C-2. Devil's Head Area, Douglas and Jefferson Counties, Colorado

This unit is located near Deckers within the South Platte Ranger District of the Pike/San Isabel National Forests in Colorado. It contains primarily FS lands. Areas with steep slopes (greater than 40 percent slope), canyons, rocky outcroppings with dense

(greater than 70 percent canopy), and mixed-coniferous forests are included in this unit. State and private lands are not designated as critical habitat.

Unit SRM-NM-1. Cebollita Mesa, Jemez Mountains, Sandoval County, New Mexico

This unit is located in the Jemez Mountains, in north-central New Mexico. It contains primarily FS (Jemez Ranger District, Santa Fe National Forests) lands. This unit contains mixed-conifer on steep slopes and canyons incised into volcanic rock. WUI project areas, State, and private lands are not designated as critical habitat.

Unit SRM-NM-4. Peralta, Jemez Mountains, Sandoval County, New Mexico

This unit is located in the Jemez Mountains, south of Los Alamos, in north-central New Mexico. It contains primarily FS (Jemez Ranger District, Santa Fe National Forests) lands. Areas with steep slopes (greater than 40 percent slope), canyons incised into volcanic rock, rocky outcroppings with dense, and mixed-coniferous forests are included in this unit. WUI project areas, State and private lands are not designated as critical habitat.

Unit SRM-NM-5a. Santa Fe National Forest, Santa Fe County, New Mexico

This unit is located approximately 9 mi (14.5 km) east of Santa Fe, New Mexico, in the Sangre de Cristo Mountains, in north-central New Mexico. It contains primarily FS lands. Areas contain attributes of owl habitat with steep slopes (greater than 40 percent slope), canyons, and rocky outcroppings with dense, mixed-coniferous forests. WUI project areas, State and private lands are not designated as critical habitat.

Unit SRM-NM-5b. Santa Fe National Forest, San Miguel, Mora Counties, New Mexico

This unit is located approximately 18 mi (29 km) west of Las Vegas, New Mexico, in the Sangre de Cristo Mountains, in north-central New Mexico. It contains primarily FS (Pecos/Las Vegas Ranger Districts, Santa Fe National Forests) lands. Areas contain attributes of owl habitat with steep slopes (greater than 40 percent slope), canyons, and rocky outcroppings with dense, mixed-coniferous forests. State and private lands are not designated as critical habitat.

Unit SRM-NM-11. Jicarilla Division, Carson National Forest, New Mexico

This unit is located approximately 40 mi (64 km) east and 12 mi (19 km) south of Bloomfield, in northwestern New Mexico. It contains primarily FS

(Jicarilla Division, Carson National Forest) lands. Areas with steep slopes (greater than 40 percent slope), canyons, and rocky outcroppings with dense, mixed-coniferous forests are included in this unit. This unit contains mixed-conifer on steep slopes and canyons incised into volcanic rock. WUI project areas, State and private lands are not designated as critical habitat.

Unit SRM-NM-12. Jicarilla Division, Carson National Forest, New Mexico

This unit is located approximately 40 mi (64 km) east and 6 mi (9.6 km) north of Bloomfield, New Mexico, in northwestern New Mexico. It contains primarily FS (Jicarilla Division, Carson National Forest) lands. Areas with steep slopes (greater than 40 percent slope), canyons, and rocky outcroppings with dense, mixed-coniferous forests are included in this unit. This unit contains mixed-conifer on steep slopes and canyons incised into volcanic rock. WUI project areas, State, private, and Tribal lands are not designated as critical habitat.

Unit CP-1. Mount Taylor, Cibola, and McKinley Counties, New Mexico

This unit is located approximately 12 mi (19 km) northeast of Grants, in west-central New Mexico. It contains primarily FS (Mount Taylor Ranger District, Cibola National Forests) lands. Habitat is naturally fragmented into disjunct canyon systems or isolated

mountain ranges. Areas with steep slopes (greater than 40 percent slope), canyons, and rocky outcroppings with dense, mixed-coniferous forests are included in this unit. This unit contains mixed-conifer and canyons habitat that contain attributes of owl habitat. State and private lands are not designated as critical habitat.

Unit CP-2. Zuni Mountains, Cibola, and McKinley Counties, New Mexico

This unit is located approximately 30 mi (48 km) southeast of Gallup, in west-central New Mexico. It contains primarily FS (Mount Taylor Ranger District, Cibola National Forests) lands. Habitat is naturally fragmented into disjunct canyon systems or isolated mountain ranges. Areas with steep slopes (greater than 40 percent slope), canyons, and rocky outcroppings with dense, mixed-coniferous forests are included in this unit. This unit contains mixed-conifer and canyons habitat that contain attributes of owl habitat. State, private, and military lands are not designated as critical habitat.

Unit CP-10. Arizona Strip, and Kaibab National Forest, Coconino County, Arizona

This unit is located in northwestern Arizona, and is predominantly within the boundaries of Kaibab National Forest and Grand Canyon National Park. The majority of this unit contains steep-walled canyon habitat, but the unit also contains forested

habitat within the North Kaibab Ranger District and Grand Canyon National Park. State, and private lands are not designated as critical habitat.

Unit CP-11. Iron, Washington, and Kane Counties, Utah

This unit is located in Iron, Washington, and Kane Counties in southwest Utah, approximately 22 mi (35 km) northeast of St. George. Canyons and steep-sloped mixed conifer habitats are included. Foraging and dispersal habitat are also present. State and private lands are not designated as critical habitat

Unit CP-12. Kaiparowits Plateau, Kane, and Garfield Counties, Utah

This Unit is in the vicinity of the Kaiparowits Plateau and the Cockscomb, in Kane and Garfield Counties. Canyons and steep-sloped mixed conifer habitats are included. Foraging and dispersal habitat are also present. State and private lands are not designated as critical habitat.

Unit CP-13. Glen Canyon Reef, Kane, Garfield, and Wayne Counties, Utah

This unit occurs in Wayne, Garfield, Kane, and San Juan Counties, Utah. It is primarily in the Waterpocket Fold landform extending to Lake Powell. Canyons and steep-sloped mixed conifer habitats are

included. Foraging and dispersal habitat are also present. State, private, and Triballands [sic] are not designated as critical habitat.

Unit CP-14. Dark Canyon Primitive and Wilderness, San Juan, Wayne, and Grand Counties, Utah

This Unit lies in Wayne, Garfield, San Juan, and Grand Counties, Utah. It includes the Dark Canyon Primitive and Wilderness areas of the BLM and FS, respectively. Canyons and steep-sloped mixed conifer habitats are included. Foraging and dispersal habitat are also present. State and privatelands [sic] are not designated as critical habitat.

Unit CP-15. West Tavaputs Plateau

This unit is located approximately 30 mi (48 km) east of Price, in Carbon and Emery Counties. Situated in the West Tavaputs Plateau, it is located largely along the Desolation Canyon area of the Green River. Canyons and steep-sloped mixed conifer habitats are included in this Unit. Foraging and dispersal habitat are also present. State and privatelands [sic] are not designated as critical habitat.

Unit BR-E-1a. White Mountain, Lincoln/Cloudcroft in Lincoln Counties, New Mexico

This unit is located in the Sacramento Mountains, New Mexico. It contains primarily Lincoln National Forests lands. Habitat includes ponderosa

pine, mixed-conifer, and spruce fir forests and is patchy distributed throughout the higher mountain ranges. State and private lands are not designated as critical habitat. WUI project areas, State, private, and Tribal lands are not designated as critical habitat.

Unit BR-E-1b. Lincoln/Cloudcroft in Otero County, New Mexico

This unit is located in the Sacramento Mountains, New Mexico. It contains primarily FS (Sacramento Ranger District, Lincoln National Forests) lands. Habitat includes ponderosa pine, mixed-conifer, and spruce fir forests and is patchy distributed throughout the higher mountain ranges. WUI project areas, Penasco BO project area, State, private, and Tribal lands are not designated as critical habitat.

Unit BR-E-3. Capitan Mountains

This unit is located in the Capitan Mountains, north of Capitan, New Mexico. It contains primarily FS (Smokey Bear Ranger District, Lincoln National Forest) lands. Habitat includes ponderosa pine, mixed-conifer, and spruce fir forests and is patchily distributed. State and private lands are not designated as critical habitat.

Unit BR-E-4. Carrizo in Lincoln County, New Mexico

This unit is located in the Carrizo Mountains, 7 mi (11 km) east of Carrizozo, New Mexico. It contains primarily FS (Smokey Bear Ranger District, Lincoln National Forest) lands. Habitat includes ponderosa pine, mixed-conifer, and spruce fir forests and is patchy distributed. State and private lands are not designated as critical habitat.

Unit BR-E-5. Manzano Mountains, Torrance County, New Mexico

This unit is located in the Manzano Mountains, approximately 24 mi (38.6 km) east of Belen, New Mexico. It contains primarily Cibola National Forest lands. Habitat includes ponderosa pine, mixed-conifer, and spruce fir forests and is patchily distributed. WUI project areas, State and private lands are not designated as critical habitat.

Unit BR-E-7. Sandia Mountain, New Mexico

This unit is located in the Sandia Mountains, 12 mi (19 km) east of Albuquerque, New Mexico. It contains primarily Cibola National Forest lands. Habitat includes ponderosa pine, mixed-conifer, and spruce fir forests and is patchy distributed. WUI project areas, State and private lands are not designated as critical habitat.

Unit BR-W-2. Prescott National Forest, Yavapai County, Arizona

This unit is located south of Prescott, Arizona, on the Prescott National Forest. The northwestern arm of the unit encompasses the area south of Iron Springs and runs south to near Mount Francis. The area located due south of Prescott, Arizona, encompasses Maverick and Lookout Mountains to the west, and stretches east, just beyond the Gila-Salt Meridian. The southernmost portion of this unit includes part of Crooks Canyon. WUI project areas, State and private lands are not designated as critical habitat.

Unit BR-W-3. Prescott National Forest, Yavapai County, Arizona

This unit is located in the Bradshaw Mountains on the Prescott National Forest, and is approximately centered on Crown King, Arizona. The unit runs north to the south slope of Tuscumbia Mountain and runs southeast to the north slope of Lane Mountain. WUI project areas, State and private lands are not designated as critical habitat.

Unit BR-W-4. Tonto National Forest, Yavapai, Gila, and Maricopa Counties, Arizona

This unit is located within the Mazatzal Wilderness on the Tonto National Forest, Arizona. The unit begins in the north at North Peak and runs south encompassing the Mazatzal Mountains south to

Buckhorn Mountain. State and private lands are not designated as critical habitat.

Unit BR-W-5. Tonto National Forest, Gila County, Arizona

This unit is located on the Tonto National Forest, Arizona, and runs southeast from Pine Mountain, towards Greenback Peak, south to Round Mountain. The area includes the northern half of the Salome Wilderness and the Sierra Ancha Wilderness. State and private lands are not designated as critical habitat.

Unit BR-W-6. Pinal Mountains Area, Gila County, Arizona

This unit is located south of Miami and Globe, Arizona. It is south of U.S. Highway 60 and west of State Highway 77. It is centered on the Pinal Mountains and contains much of the owl habitat within that mountain range. It is primarily on the Globe Ranger District of the Tonto National Forest. It also contains a small portion of BLM lands. WUI project areas, State, private, and BLM lands are not designated as critical habitat.

Unit BR-W-7. Santa Teresa Mountains Area, Graham County, Arizona

This unit is located south of the San Carlos Indian Reservation and north of Klondyke, Arizona.

It is centered on the Santa Teresa Mountains and contains much of the owl habitat within that mountain range. It is primarily on the Safford Ranger District of the Coronado National Forest. State, private, BLM, and Tribal lands are not designated as critical habitat.

Unit BR-W-8. Pinaleno Mountains Area, Graham County, Arizona

This unit is located southwest Safford, Arizona. It is centered on the Pinaleno Mountains and contains much of the owl habitat within that mountain range. It is primarily on the Safford Ranger District of the Coronado National Forest. WUI project areas, State and private lands are not designated as critical habitat.

Unit BR-W-9. Galiuro Mountains Area, Graham County, Arizona

This unit is located south of Klondyke, Arizona. It is centered on the Galiuro Mountains and contains much of the owl habitat within that mountain range. It is on the Safford Ranger District of the Coronado National Forest. State, private and BLM lands are not designated as critical habitat.

Unit BR-W-10. Winchester Mountains Area, Cochise County, Arizona

This unit is located northwest of Willcox, Arizona. It is centered on the Winchester Mountains and contains much of the owl habitat within that mountain range. It is primarily on the Safford Ranger District of the Coronado National Forest. State, private, and BLM lands are not designated as critical habitat.

Unit BR-W-11. Santa Catalina and Rincon Mountains Area, Pima and Pinal Counties, Arizona

This unit is located north and east of Tucson, Arizona. It is centered on the Santa Catalina and Rincon Mountains and contains much of the owl habitat within those mountain ranges. It is primarily on the Santa Catalina Ranger District of the Coronado National Forest. WUI project areas, State and privatelands [sic] are not designated as critical habitat.

Unit BR-W-12. Santa Rita Mountains Area, Santa Cruz,and Pima Counties, Arizona

This unit is located west of Sonoita, Arizona. It is centered on the Santa Rita Mountains and contains much of the owl habitat within that mountain range. It is primarily on the Nogales Ranger District of the Coronado National Forest. State and private lands are not designated as critical habitat.

Unit BR-W-13. Atascosa and Pajarito Mountains Area, Santa Cruz County, Arizona

This unit is located west of Nogales, Arizona. It is centered on the Atascosa and Pajarito Mountains and contains much of the owl habitat within those mountain ranges. It is primarily on the Nogales Ranger District of the Coronado National Forest. State and private lands are not designated as critical habitat.

Unit BR-W-14. Patagonia Mountains Area, Santa Cruz County, Arizona

This unit is located south of Patagonia, Arizona. It is centered on the Patagonia Mountains and contains much of the owl habitat within that mountain range. It is primarily on the Sierra Vista Ranger District of the Coronado National Forest. WUI project areas, State and private lands are not designated as critical habitat.

Unit BR-W-15. Huachuca Mountains Area, Cochise County, Arizona

This unit is located west and south of Sierra Vista, Arizona. It is centered on the Huachuca Mountains and contains much of the owl habitat within that mountain range. It is on the Sierra Vista Ranger District of the Coronado National Forest. WUI project areas, State, private, and military lands are not designated as critical habitat.

Unit BR-W-16. Whetstone Mountains Area, Cochise County, Arizona

This unit is located southwest of Benson, Arizona. It is centered on the Whetstone Mountains and contains much of the owl habitat within that mountain range. It is primarily on the Sierra Vista Ranger District of the Coronado National Forest. State and private lands are not designated as critical habitat.

Unit BR-W-18. Chiricahua Mountains Area, Cochise County, Arizona

This unit is located northeast of Douglas, Arizona. It is centered on the Chiricahua Mountains and contains much of the owl habitat within that mountain range. It is on the Douglas Ranger District of the Coronado National Forest. WUI project areas, State and privatelands [sic] are not designated as critical habitat.

Unit UGM-2. Magdalena Mountains, Socorro County, New Mexico

This unit is located in the Magdalena Mountains, 6 mi (9.6 km) south of Magdalena, New Mexico. It contains primarily FS (Magdalena Ranger District, Cibola National Forests) lands. This unit contains ponderosa pine, mixed-conifer, spruce fir, stringers of deciduous riparian forests. WUI project areas, State and private lands are not designated as critical habitat.

Unit UGM-3. San Mateo Mountains, Socorro County, New Mexico

This unit is located in the San Mateo Mountains, 36 mi (58 km) southwest of Magdalena, New Mexico. It contains primarily FS (Magdalena Ranger District, Cibola National Forests) lands. This unit contains ponderosa pine, mixed-conifer, spruce fir, stringers of deciduous riparian forests. WUI project areas, State and private lands are not designated as critical habitat.

Unit UGM-5a. Gila National Forest, Catron, and Grant Counties, New Mexico

This unit is located in the Gila Mountains, north of Silver City, New Mexico. It contains primarily Gila National Forests lands. This unit contains ponderosa pine, mixed-conifer, spruce fir, stringers of deciduous riparian forests. WUI project areas, State and private lands are not designated as critical habitat.

Unit UGM-5b. Gila National Forest, Sierra, Catron, and Grant Counties, New Mexico

This unit is located in the Gila Mountains, approximately 30 mi (48 km) west of Truth or Consequences, New Mexico. It contains primarily Gila National Forests lands. This unit contains ponderosa pine, mixed-conifer, spruce fir, stringers of deciduous riparian forests. WUI project areas, State and private lands are not designated as critical habitat.

Unit UGM-6. Gila Mountains, Catron County, New Mexico

This unit is located in the Gila Mountains, North of Silver City, New Mexico. It contains primarily FS (Reserve Ranger District, Gila National Forests) lands. This unit contains ponderosa pine, mixed-conifer, spruce fir, stringers of deciduous riparian forests. WUI project areas, State and private lands are not designated as critical habitat.

Unit UGM-7. Apache-Sitgreaves and Gila National Forests, Catron County, New Mexico, Graham and Greenlee Counties, Arizona

This unit is located in the Mogollon Rim in Arizona and New Mexico. It contains primarily FS lands. This unit contains ponderosa pine, mixed-conifer, spruce fir, stringers of deciduous riparian forests. WUI project areas, State, private, and Tribal lands are not designated as critical habitat.

Unit UGM-10. Coconino National Forest, Apache-Sitgreaves National Forest, and Tonto National Forests, Coconino, Gila, and Yavapai Counties, Arizona

This unit is located north, northwest, east, and southeast of Payson, Arizona. The western boundary of this unit runs parallel to the Yavapai County – Coconino County line, south to the Mogollon Rim. The southwest boundary runs along the Mogollon Rim. To the north, the unit encompasses the Coconino County

portion of West Clear Creek and runs east along Jacks Canyon on the Coconino National Forest. The unit includes portions of West Chevelon, Chevelon, and Wildcat Canyons on the Apache-Sitgreaves National Forest and extends from Heber, Arizona, through the Apache-Sitgreaves National Forest, south along the Tonto National Forest boundary to Gentry Mountain. State and private lands are not designated as critical habitat.

Unit UGM-11. Coconino National Forest, Coconino and Yavapai Counties, Arizona

This unit is located south of Mountainaire, Arizona and runs south-southeast, encompassing Howard, Mormon, and Hutch Mountains. To the west, the unit parallels Interstate 17, skirting Stoneman Lake. The southern boundary runs from east of Apache Maid Mountain to Happy Jack, Arizona, south to Willow Valley Dam. The unit does not include Mormon Lake and the area due south to Double Cabin Park. WUI project areas, State and private lands are not designated as critical habitat.

Unit UGM-12. Coconino National Forest, Coconino County, Arizona

This unit is located east of Flagstaff, Arizona. WUI project areas, State and private lands are not designated as critical habitat.

Unit UGM-13. Coconino National Forest, Kaibab National Forest, Prescott National Forest, and Camp Navajo Army Depot; Coconino and Yavapai Counties, Arizona

This unit is located approximately between Williams and Flagstaff, Arizona, to the north, and runs south to the Mogollon Rim. The western portion of the unit encompasses the area south of Williams, Arizona, south to the Mogollon Rim. This area includes Bill Williams Mountain, Sycamore Canyon Wilderness, and Volunteer Canyon. WUI project areas, State, private, and the Naval Observatory Flagstaff Station are not designated as critical habitat.

Unit UGM-14. Coconino National Forest, Coconino County, Arizona

This unit is located due north of Flagstaff, Arizona, and encompasses the San Francisco Peaks. The unit also includes the Hochderffer Hills, O'Leary Peak, the Dry Lake Hills, and Elden Mountain. WUI project areas, State and private lands are not designated as critical habitat.

Unit UGM-15. Kaibab National Forest, Coconino County, Arizona

This unit is located northwest of Flagstaff, Arizona. The unit is located west of U.S. Highway 180 and encompasses the area from Kendrick Peak northwest

to Wild Horse Canyon. State and private lands are not designated as critical habitat.

Unit UGM-17. Kaibab National Forest, Coconino County, Arizona

This unit is located north of Parks, Arizona, and includes Sitgreaves Mountain, RS Hill, and Government Hill. State and private lands are not designated as critical habitat.

Special Management Considerations or Protection

As we undertake the process of designating critical habitat for a species, we first evaluate lands defined by those physical and biological features essential to the conservation of the species for inclusion in the designation pursuant to section 3(5)(A) of the Act. We then evaluate lands defined by those features to assess whether they may require special management considerations or protection. As discussed elsewhere in this final rule, the two primary reasons that are cited for listing the owl as threatened in 1993 include: (1) historical alteration of its habitat as the result of timber management practices, specifically the use of even-aged silviculture, and the threat of these practices continuing; and (2) the danger of catastrophic wildfire. As discussed in the background section above, the Forest Service in Arizona and New Mexico have amended their Forest Plans to address the threat of even-aged silviculture,

however, the risk of catastrophic wildfire remains a significant threat to the owl.

The Recovery Plan for the owl outlines management actions that guide land management agencies in efforts to remove recognized threats and recover the owl. The Service has an existing policy for both owls and critical habitat that identifies using the Recovery Plan for section 7 consultations. Our policy indicates that an action in critical habitat that affects primary constituent elements may affect critical habitat and, therefore, must be consulted upon. In general, if a proposed action is in compliance with the Recovery Plan, we consider the effects to be insignificant and discountable and not likely to adversely affect the species or its critical habitat (*i.e.*, an informal consultation). Conversely, those activities not in compliance with the Recovery Plan are likely to adversely affect the species or its critical habitat (*i.e.*, formal consultation). Actions on Federal lands that we reviewed in past consultations on effects to the owl include land management plans; land acquisition and disposal; road construction, maintenance, and repair; timber harvest; livestock grazing and management; fire/ecosystem management projects (including prescribed natural and management ignited fire); powerline construction and repair; campground and other recreational developments; and access easements. We expect that the same types of activities will be reviewed in section 7 consultations for designated critical habitat. Thus, we believe the areas being designated as critical habitat will require some

level of management and/or protection to address the current and future threats to the owl and maintain the primary constituent elements essential to its conservation in order to ensure the overall conservation of the species.

Exclusions Under Section 4(b)(2) of the Act

Section 4(b)(2) of the Act requires that we designate critical habitat on the basis of the best scientific information available, and that we consider the economic impact, National Security, and any other relevant impacts of designating a particular area as critical habitat. We may exclude areas from critical habitat if the benefits of exclusion outweigh the benefits of designation, provided the exclusion will not result in the extinction of the species. For the reasons discussed below, our analysis of the following: (1) Mescalero Apache, San Carlos Apache, and Navajo Nation lands; and (2) 157 WUI project areas, including the Rio Penasco II vegetation management project on the Sacramento Ranger District, Lincoln National Forest (discussed below), on FS lands that are categorized as being "at imminent risk of catastrophic wildfire", concludes that the benefits of excluding these areas from the designation of critical habitat for the owl outweigh the benefits of including them. Therefore, we are not including these lands within the critical habitat designation for the owl.

We have also completed an analysis of the economic impacts of designating these areas as critical

habitat. The economic analysis was conducted in a manner that is consistent with the ruling of the 10th Circuit Court of Appeals in *N.M. Cattle Growers Ass'n v. USFWS*, 248 F.3d 1277 (2001). It was available for public review and comment during the comment periods for the proposed rule. The final economic analysis is available from our Web site at *http://ifw2es.fws.gov/mso/* or by contacting our New Mexico Ecological Services Field Office (*see* **ADDRESSES** section).

As detailed below, we have excluded 157 WUI project areas and the Penasco WUI project area, all Tribal lands, and the majority of military lands. As such we anticipate no impact to National Security, Tribal lands, partnerships, or habitat conservation plans from this critical habitat designation.

Wildland Urban Interface (WUI) on Forest Service (FS) Lands

During the comment period we received requests to exclude lands that are included within WUI areas of National Forests. Pursuant to section 4(b)(2) of the Act, this request prompted us to take into consideration the health and human safety risk of State, private, and Tribal lands adjacent to FS lands that are at imminent risk of catastrophic wildfire (FS 2001; Service 2001; 66 FR 43384). We consider the human health and safety risk of these lands as an "other relevant impact."

The WUI projects that we evaluated are those that were identified in the February 21, 2001,

programmatic biological assessment and evaluation for WUI fuel treatment (programmatic BA) (FS 2001; *http://www.fs.fed.us/r3/wui/*). The programmatic BA analyzed effects to 32 threatened, endangered, and proposed species, including effects to the owl and its habitat from 157 WUI projects. The resulting April 10, 2001, programmatic biological opinion (programmatic BO) found that the WUI projects would be individually implemented by the FS during site-specific (*i.e.*, project-level) review of the amount of material (*i.e.*, fuels) that are within a project and the potential of a fire starting, as documented in their NEPA analyses. Only those projects that the FS documents as "at imminent risk of catastrophic wildfire" are covered by the programmatic BO (Service 2001). The FS proposed treatments to keep fires on the ground, where suppression efforts can be more effective. These activities were proposed to occur at two intensity levels within owl habitat. Treatments within 0.5 mi (0.8 km) of private lands may be intensive (*e.g.*, reducing basal area in mixed conifer habitat to between 40 to 60 ft^2 [3.7 to 5.6 m^2]), whereas treatments outside the 0.5 mi (0.8 km) buffer around private lands must comply with the Recovery Plan (Service 1995, 2001). Our analysis of the database for the projects (*http://www.fs.fed.us/r3/wui/*) indicates that 26 of the projects resulted in a "may affect, not likely to adversely affect" determination, whereas 132 projects resulted in a "may affect, likely to adversely affect" determination for the owl. Although one project, the Rio Penasco II vegetation management project on the Sacramento Ranger District, Lincoln

National Forest, was analyzed in the programmatic BO (Penasco BO), the FS reinitiated this individual consultation because the project included additional actions that were not covered by the programmatic BO. The Penasco BO analyzed the effect of take of the owl from implementing an experimental management approach and rigorous monitoring program that will provide information useful for guiding future forest thinning projects and assessing potential impacts to owl habitat and prey. This project was recommended by the Recovery Plan and endorsed by the Recovery Team leader and other other [sic] Recovery Team members (Service 1995, 2002). We are also excluding the area covered by the Penasco BO.

(1) Benefits of Inclusion

The benefits of including the lands covered by these 157 project areas and the Penasco WUI project area in Arizona and New Mexico in critical habitat for the owl would result from the requirement under section 7 of the Act that Federal agencies consult with us to ensure that any proposed actions do not destroy or adversely modify critical habitat. As noted above, the programmatic BO and Penasco BO for these projects was finalized in 2001 and 2002, respectively, at which time we concluded that the proposed actions are not likely to jeopardize the continued existence of the owl. The programmatic BO and Penasco BO analyzed effects to owl habitat from the proposed activities to reduce the risk of catastrophic wildfire. One of the main sources of information in these

consultations was the Recovery Plan, which is also one of the primary sources of information for this designation. Because we have an existing policy for both owls and critical habitat that identifies using the Recovery Plan for section 7 consultations, including these 157 WUI project areas and the Penasco WUI project area within the designation likely will not affect our resulting analyses. As fully described in the environmental assessment, our policy indicates that an action in critical habitat that affects primary constituent elements may affect critical habitat and, therefore, must be consulted upon. In general, if a proposed action is in compliance with the Recovery Plan, we consider the effects to be insignificant and discountable and not likely to adversely affect the species or its critical habitat (*i.e.*, an informal consultation). Conversely, those activities not in compliance with the Recovery Plan are likely to adversely affect the species or its critical habitat (*i.e.*, formal consultation). In this case, we have already completed formal consultation for these 157 WUI projects and the Penasco WUI project area using the definitions of owl habitat as identified in the Recovery Plan. If the 157 WUI project areas and the Penasco WUI project area were included within the designation, the FS would be required to reinitiate consultation, where we would analyze the potential impacts of the proposed projects on protected or restricted areas. Because a reinitiation of this consultation would use the same definitions of owl habitat (*i.e.*, protected or restricted habitat), it is unlikely that this process would result in additional protections for the owl. Thus, we believe

that a duplicative analysis would only result in potential delays for the implementation of these projects. It is important to note that if any of the 157 WUI projects are not consistent with programmatic BO or if the Penasco WUI project is not consistent with the BO covering this project area, due to a change in the proposed action, the FS would reiniate [sic] the consultation based on the listing of the owl.

Critical habitat designation of these WUI project areas could potentially provide some benefit to the species. For example, the environmental assessment found that consultations may be more standardized with respect to analysis of impacts to primary constituent elements because the habitat-based guidelines of the Recovery Plan would be applied formally to key features of habitat. The environmental assessment also found that designation would add a monitoring component to the consultation process for cumulative impacts to habitat (*i.e.*, similar to the section 7 rangewide take monitoring that currently occurs for the species). Nevertheless, we do not believe that these 157 WUI project areas and the Penasco WUI project area would receive these additional benefits from being included within the designation of critical habitat for the owl because standardized impacts to owl habitat have already been programmatically analyzed by comparing the proposed action to the habitat-based guidelines of the Recovery Plan. Further, the FS is currently required to have an annual monitoring and review of the individual and combined impact of each year's

projects, including those implemented under the Penasco BO.

We find sufficient regulatory and protective conservation measures in place from the current programmatic BO and Pena[s]co BO. For these reasons, we find that little additional benefit through section 7 consultation would occur as a result of the overlap between current policy and existing information.

In *Sierra Club* v. *Fish and Wildlife Service,* 245 F.3d 434 (5th Cir. 2001), the Fifth Circuit Court of Appeals stated that the identification of habitat essential to the conservation of the species can provide informational benefits to the public, State and local governments, scientific organizations, and Federal agencies. The court also noted that heightened public awareness of the plight of listed species and their habitats may facilitate conservation efforts. We agree with these findings; however, we believe that there would be little additional informational benefit gained from including these 157 WUI project areas or the Penasco WUI project area within the designation because they were included in the proposed rule and discussed in this final rule. Consequently, we believe that the informational benefits are already provided even though these projects are not designated as critical habitat.

(2) Benefits of Exclusion

As discussed in the "Background" section of this rule, the two primary reasons for listing the owl as

threatened in 1993: (1) Historical alteration of its habitat as the result of timber management practices, specifically the use of even-aged silviculture, and the threat of these practices continuing; and (2) the danger of catastrophic wildfire. The Recovery Plan for the owl outlines management actions to remove recognized threats and recover the owl.

We recognize that wildfires on National Forest lands in the southwestern region have increased in size and intensity over the last 15 years (FS 2004). According to the FS, an overwhelming majority of the areas identified in the programmatic BA occur in fire condition class 2 or 3, indicating moderate-to-high fire severity with severe consequences to the ecosystem and human life and property (FS 2001). Without treatment, the loss of endangered species habitat from catastrophic wildfire will likely be much greater and have more adverse affects. For example, the FS reported that approximately 45 owl PACs were significantly modified on FS lands by wildfire between 1996 and 2001 (FS 2001). We note that within the Upper Gila Mountains RU, high-to-moderate-intensity stand-replacing fires affected 84 PACs from 1995 to 2002 (Service 2004). One fire in particular, the 2002 Rodeo-Chediski, burned 55 PACs (Service 2002). The 157 WUI projects and the Penasco WUI project involve reducing fuel loads to protect human life, property, and natural resources (FS 2001). These project areas include critical communications sites, municipal watersheds, high voltage transmission lines, observatories, church camps, scout camps,

research facilities, and other structures. The areas also include residential communities at imminent risk from wildfire (FS 2001). As noted below, by excluding these project areas from the designation of critical habitat, the programmatic BO and the Penasco BO will not have to be reinitiated and will not require any additional compliance with section 7 consultation. Thus, this exclusion will allow the FS to proceed without any delays associated with the FS having to reinitate [sic] consultation on the programmatic BO and Penasco BO. We believe it is extremely important to allow these project [sic] to proceed due to the fact that these areas have been identified as areas at risk of moderate-to-high fire severity with severe consequences to the ecosystem and human life and property (FS 2001).

Loss of habitat from catastrophic wildfire is also one of the two main threats to the owl. Consequently, management actions taken to reduce risk and potential size of high-severity wildfires are recognized as a vital component of owl recovery (Service 1995). For example, the Recovery Plan includes guidelines for both mechanical thinning and prescribed fire in protected and restricted habitat (Service 1995). The Recovery Team has also refined guidelines to assist land managers implementing fuel management activities to reduce the risk of stand-replacing wildfires (Service 2001). We also have developed alternative approaches to streamlining section 7 consultation for hazardous fuels treatment projects (Service 2002), including a consideration of the benefits of these

activities to the owl and its habitat (Service 2002a). We believe the exclusion of these 157 WUI project areas and the Penasco WUI project area from critical habitat for the owl is consistent with these recovery guidelines. Following these guidelines, we balanced the anticipated effects of the projects against the effects that will result if no action is taken. For example, we analyzed these projects in the programmatic BO and Pena[s]co BO because we anticipated short-term adverse effects to the owl, but believe that the proposed actions will result in long-term benefits by reducing the risk of wildfire on these and adjacent lands.

The economic analysis concluded that impacts on fire management activities are likely to be greatest in areas where WUI lands overlap with owl critical habitat. Our economic analysis found that there may be a decrease in effectiveness of actions taken to reduce the risk of catastrophic wildfire in WUI areas due to: (1) Possible delays of fuel reduction treatments in PACs (*i.e.*, breeding season restrictions); (2) avoiding the 100-ac (40.5-ha) core area of PACs; and (3) reduced thinning in PACs. Breeding season restrictions, avoidance of the 100-ac (40.5-ha) core area, and reduced thinning in PACs are recommendations made under the jeopardy standard when a project is proposed in a PAC; however, because consideration was given collectively to all "owl conservation activities" in the economic analysis these costs were also analyzed. Using the programmatic BO, this overlap was estimated to be about 4 percent (134,000

ac [54,228 ha]). By excluding these project areas from the designation of critical habitat, the programmatic BO and Penasco BO will not have to be reinitiated and will not require any additional compliance with section 7 consultation. Thus, exclusion of these areas from the designation will avoid any delays associated with the FS having to reinitate [sic] consultation on the programmatic BO and Penasco BO or having to reiniate [sic] consulation [sic] on a project by project basis on these completed section 7 consulations [sic].

Critical habitat is often viewed negatively by the public since it is not well understood and there are many misconceptions about how it affects private landowners (Patlis 2001). During the public comment period, one of the most common issues was that designation of critical habitat could impede efforts to reduce the risk of wildfire on National Forest lands and surrounding communities. The development of the forest restoration projects often involves a variety of stakeholders, including private landowners. Throughout the stakeholder-based planning process, Federal land managers must build trust among diverse and competing interests by encouraging open dialogue regarding various forest management issues. If these 157 WUI project areas and the Penasco WUI project area were included in the critical habitat designation, we conclude that the introduction of additional Federal (*e.g.*, a new regulation from the Service) influence could jeopardize the trust and spirit of cooperation that has been established over the last several years. The designation of critical

habitat would be expected to adversely impact our, and possibly other Federal land managers", working relationship with private landowners, and we believe that additional Federal regulation of these high-fire risk areas through critical habitat designation would be viewed as an unwarranted and unwanted intrusion.

We believe it is important for recovery of this species that the public understand that the conservation-related activities for the owl that are proposed by Federal agencies are complementary with forest restoration activities to reduce threats to public and private lands (*e.g., see* Carson Forest Watch 2004). Additionally, the support of the public will also be required as Federal land managers propose fuels reduction activities that will alter the current structure of forests while reducing the threats from stand-replacing wildfires. For example, in many places throughout the southwest, people are often opposed to forest restoration activities if it alters their aesthetic views of forested lands. To this end, as Federal land managers develop treatments to reduce this risk (*i.e.*, prescribed fire, mechanical thinning, *etc.*), it is critical that the public understand and support such activities. We find that the exclusion of these WUI project areas from the designation will improve public support for overall forest restoration activities, which will provide benefits to the owl. For these reasons, we find that significant benefits result from excluding these 157 WUI project areas and the Penasco WUI project area from designation of critical habitat.

In summary, we believe that the benefits of excluding the 157 WUI project areas and the Penasco WUI project area from critical habitat for the owl outweigh the benefits of their inclusion in critical habitat. Including these areas may result in some benefit through additional consultations with FS, whose activities may affect critical habitat. However, overall this benefit is minimal because evaluation of affects to the critical habitat would result in the same conservation recommendations as the programmatic BO and Penasco BO which have already been completed. On the other hand, an exclusion will greatly benefit the overall recovery of the owl by reducing the risk of catastrophic wildfire, one of the greatest threats to the species. An exclusion would also assist Recovery efforts by garnering greater public acceptance of owl conservation activities. Thus, we believe that an exclusion of these 157 WUI project areas and the Penasco WUI project area outweighs any benefits that could be realized through them being designated as critical habitat for the owl. Consequently, we have not included these 157 project areas or the Penasco WUI project area within this critical habitat designation pursuant to section 4(b)(2) of the Act on the basis of human health and saftey [sic] concerns and for the purpose of future fuel reduction consultations. We also find that the exclusion of these lands will not lead to the extinction of the species, nor hinder its recovery because these projects have already been evaluated under the guidelines set by the Recovery Plan for the owl for

both jeopardy to the species and adverse modification of critical habtiat [sic].

American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act

We describe here authorities and policies that the Service follows when consulting with Tribes on issues related to endangered and threatened species. We believe that we fullfilled [sic] our responsibilities to the Tribes as further discussed in our exclusion analysis below. In accordance with the Secretarial Order 3206, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act" (June 5, 1997); the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951); Executive Order 13175; and the relevant provision of the Departmental Manual of the Department of the Interior (512 DM 2), we believe that fish, wildlife, and other natural resources on Tribal lands are better managed under Tribal authorities, policies, and programs than through Federal regulation wherever possible and practicable. Based on this philosophy, we believe that, in many cases, designation of Tribal lands as critical habitat provides very little additional benefit to threatened and endangered species.

Tribal governments protect and manage their resources in the manner that is most beneficial to them. Each of the three affected Tribes exercises

legislative, administrative, and judicial control over activities within the boundaries of their respective lands. Additionally, they all have natural resource programs and staff, and have enacted Mexican spotted owl management plans. In addition, as trustee for land held in trust by the United States for Indian Tribes, the BIA provides technical assistance to the Tribes on forest management planning and oversees a variety of programs on Tribal lands. Owl conservation activities have been ongoing on Tribal lands included in the proposed critical habitat designation and will continue with or without critical habitat designation.

Tribal Conservation/Management Plans

In this section, we first provide the specifics of the owl Management/Conservation Plans that were developed by the San Carlos Apache Tribe, Navajo Nation, and Mescalero Apache Tribe (Mescalero Apache 2000, San Carlos Apache 2003, Navajo Nation 2000). These plans were all admitted to the supporting record during the November 2003 open comment period for the proposed rule (68 FR 65020). After this introduction, we analyze the benefits of including the Tribes' lands within the critical habitat designation and the benefits of excluding these areas.

(1) *Mexican Spotted Owl Conservation Plan for the San Carlos Apache (SCA) Indian Reservation (Conservation Plan)*: The SCA staff developed a tribal owl conservation plan, and their Tribal Council has subsequently approved it. In November 2003, we

received a redacted version of the SCA Conservation Plan (San Carlos Apache Tribe 2003). We reviewed the SCA Conservation Plan and agree with the Tribe and BIA, that the application of owl conservation management principles provided by the Recovery Plan should be beneficial for the owl and its habitat on SCA lands (San Carlos Apache Tribe 2003, BIA 2003).

SCA conducts owl surveys to evaluate and design projects that minimize or avoid impacts to the owl and its habitat. The Tribe also conducts periodic surveys within PACs to determine occupancy. Owls are found across the northern third of the SCA Indian Reservation; however, most suitable nesting and foraging habitat is in remote, inaccessible areas. Although these areas have very little overlap with commercial forest operations, owl habitat has generally been deferred from timber harvests since the listing of the owl. Nevertheless, this continual monitoring of habitat and species occupancy provides current GIS and other information to manage the overall forest resources.

The SCA's primary timber management practice is uneven-aged silviculture systems, using single-tree selection methods. The key factor considered in the SCA Conservation Plan is that there is very little overlap between forested lands currently considered practical for commercial harvesting operations and forested lands considered to be owl habitat. Thus, the majority of the high-potential breeding habitat (steep

slopes, mixed-conifer) receives little or no timber management.

The SCA Conservation Plan addresses identified threats to owl habitat by maintaining sufficient suitable habitat across the landscape and by using site-specific retention of complex forest structure following timber harvest in those few areas where owl habitat and timber management overlap. Nest/roost habitats, primarily in mixed-conifer and steep slope areas, are not managed for timber extraction and will remain as suitable nest/roost habitat. Foraging habitat will be managed almost entirely by uneven-aged timber harvest methods. Timber sales, thinning, and fuelwood projects are conducted within some owl habitat to extract resources, improve or maintain current habitat conditions, and increase forest health (*e.g.* controlling dwarf mistletoe and bark beetles). Like the Recovery Plan, the SCA Conservation Plan adopts site-specific management to address protected, restricted, and reserved habitat and limits disturbance within owl PACs. PACs are at least 600 ac (243 ha) in size and established around known nest/roost sites. For example, prescribed fires and thinning are deferred from PACs during the breeding season (San Carlos Apache Tribe 2003). We find that the SCA Conservation Plan generally follows the Recovery Plan guidelines for owl habitat protection.

Wildfire is considered to be the greatest threat to owl habitat on the SCA Reservation. Steep slopes and canyons occupied by the owl are especially at risk. The SCA Indian Reservation Wildland Fire

Management Plan Programmatic Environmental Assessment (Fire Management Plan) identifies fire reintroduction to fire-adapted and fire-dependent ecosystems. Natural and prescribed fire and mechanical treatments are used to manage forest resources. The Fire Management Plan objectives include: (1) Limiting the risk of harm to threatened and endangered species or their habitat; (2) reducing fuel accumulation to acceptable levels; (3) maintaining an ecologically proper amount of leaf litter, duff, organic matter, and woody material in each biotic community; (4) thinning dense vegetation; and (5) using fire in fire-adapted and fire-dependent ecosystems.

The Tribe indicated that projects will continue to go through NEPA, including the development of a biological assessment for any actions that may affect the owl. Suitable nesting and roosting habitat, as well as foraging habitat, on the reservation has been mapped and PACs have been established for all known owl pairs. Thus, any impacts from management activities to either PACs or owl habitat will trigger section 7 consultation due to the Federal involvement of the BIA, regardless of critical habitat designation, since the areas are presently occupied by the owl.

The SCA Tribe participates on the Upper Gila RU workgroup, which ensures the timely sharing of management information. The Tribe also developed a Statement of Relationship with us that was approved by the Tribal Council and formally identifies and

fosters our working relationship through government-to-government consultations and activities. The formal signing ceremony between the Service and the Tribe is being planned.

During our discussions with the Tribe for the economic analysis, the Tribe advised us that their lands are actively managed for commercial timber harvest to provide materials for their sawmill. Any delays or reductions in timber harvest stemming from a designation of critical habitat could result in fewer jobs and revenue for the SCA.

The designation of critical habitat would be expected to adversely impact our working relationship with the SCA Tribe. The Tribe believes that additional Federal regulation through critical habitat designation is unwarranted and an unwanted intrusion into their tribal natural resource programs. Our working relationship with the SCA Tribe has been extremely beneficial in implementing natural resource programs of mutual interest, including programs on other Tribal lands (*e.g.*, Jicarilla Apache, White Mountain Apache, Southern Ute). Because the SCA Tribe is committed to implementing these activities, we find that the SCA Conservation Plan provides significant conservation benefits to the owl.

(2) *The Navajo Nation Management Plan for the Mexican Spotted Owl (Navajo MSO Management Plan)*: The Navajo Nation stated in their November 9, 2000, letter to the Service conveying the Navajo MSO Management Plan for the owl, that it was developed

to meet the Service's desire to "support tribal measures that preclude the need for federal conservation regulations." The Navajo MSO Management Plan was approved by the Navajo Nation Council, which has oversight of the Division of Natural Resources and is empowered to establish Navajo Nation policy with respect to natural resources. The Navajo MSO Management Plan describes the Navajo Nation's management scheme that has been in effect since the listing of the owl: the known and potential habitat for the owl on the Navajo Nation; threats to the species; and future management practices. Except for the few exceptions detailed below, the Navajo MSO Management Plan follows the recommendations of the Recovery Plan.

We have received a redacted version of the Navajo MSO Management Plan (Navajo Nation 2000). We reviewed the document in early 2001 and again for this final rule and find that it provides a conservation benefit to the owl and its habitat. The Navajo MSO Management Plan is designed to effectively manage the owl on the Navajo Nation using accepted conservation techniques, especially those recommended in the Recovery Plan. The following practices are used to protect and manage the owl on the Navajo Nation: (1) Mandatory pre-action owl protocol surveys; (2) Federal agency section 7 consultations for proposed projects; (3) establishment of 600-ac (243-ha) PACs around all recent and historic owl sites; and (4) the Tribal project approval process, including requiring that all non-Federal activities avoid taking owls

(Navajo Nation 2000). To date, very few projects have altered owl habitat on the Navajo Nation and none have occurred without section 7 consultation.

The Navajo MSO Management Plan also lists the following threats to the owl and possible management responses to minimize the majority of these impacts: (1) Abandoned mine reclamation; (2) commercial timber harvest; (3) fire management; (4) fuelwood harvest; (5) grazing; (6) homesite development; (7) coal mining; (8) recreation; (9) road building and reconstruction; and (10) other developments and activities.

We initiated formal consultation on the Navajo MSO Management Plan in 2003, and provided a draft biological opinion to the BIA and the Navajo Nation. The Navajo MSO Management Plan follows nearly all of the recommendations of the Recovery Plan, except for those detailed below. The economic analysis also found that the BIA expects to undergo several large-scale consultations with the Service in the near future for various related management plans, including continuing consultation on the Navajo Forest Management Plan (which is a programmatic plan for timber harvesting) and the Navajo Nation Fire Management Plan. The Navajo Forest Management Plan is still undergoing review by the BIA. The Service will also be completing formal consultation on the plans.

The Recovery Plan recommendations that will not be followed include those that address: (1) Grazing within other forest and woodland types; (2)

uncontrolled grazing within riparian communities of restricted areas; and (3) small amounts of uncontrolled recreation. In addition, there is no pine-oak forest habitat, as defined in the Recovery Plan, on lands of the Navajo Nation; therefore, there is no need for it to be addressed in the Navajo Nation's MSO Management Plan. We acknowledge that those activities enumerated above do not follow the recommendations of the Recovery Plan, but still find that compliance with the other aspects of the Recovery Plan provides conservation benefits to the owl. We reached this conclusion because we anticipate that when the BIA issues grazing permits and determines that the activities "may affect" the owl, they will consult with us. We do not consult with the Navajo Nation on uncontrolled grazing or recreation because there is no Federal nexus or discretion that would require section 7 consultation. Thus, critical habitat would not affect the outcome of these activities.

The recommendations of the Recovery Plan will be followed by the Tribe for nearly all actions that occur within PACs (except unregulated grazing and recreation). Other examples of measures to minimize or avoid impacts include deferred treatments of areas during the owl's breeding season (March 1 through August 31), a 0.25 mi (0.4 km) buffer of nesting or roosting habitat, and the development of a 100-ac (40.5-ha) no habitat alteration core area around known nest or roost sites during March 1 through August 31. Moreover, the Navajo MSO Management Plan minimizes impacts associated with human

activities, and controlled burns would be planned to follow the Recovery Plan recommendations for protected and restricted habitat and other forest and woodland types.

The Navajo Nation currently participates on the Colorado Plateau Recovery Unit Working Team. This relationship allows ideas, information, and concerns to be incorporated into management actions for the recovery of the owl. Participation in this working team also facilitates dialogue between other land management agencies, the Service, and the Navajo Nation.

Similar to other Tribes (see discussion above), the Navajo Nation officials have indicated that the designation of critical habitat on their lands would be expected to adversely impact the working relationship with the Service, which has been extremely beneficial in implementing natural resource programs of mutual interest.

(3) *The Mexican Spotted Owl Management Plan for the Mescalero Apache Reservation (Mescalero MSO Management Plan)*: The Mescalero MSO Management Plan and accompanying Biological Assessment was adopted and approved by the Mescalero Apache Tribal Council in August 2000 (Mescalero Apache 2000).

The Mescalero MSO Management Plan provides for maintenance and/or improvement of essential habitat features and manages for the long-term conservation of the species on their lands. Specific

guidelines are provided concerning forest management, livestock grazing, and recreation that are designed to maintain current owl populations while allowing levels of resource outputs that meet Tribal desires and provide for a healthy ecosystem. In addition, a number of Tribal forest management practices and methods provide protection to the owl and promote forest biodiversity. These include, but are not limited to, retention of the hardwood component in all areas that are harvested; retention of all snags that are not hazardous to human life; protection of habitat on steep slopes; emphasis on uneven-aged silvicultural techniques; and provisions for special management areas such as riparian and reserve/wilderness areas.

The following are used to protect and manage the owl on the Mescalero Tribal lands: (1) Surveys to determine occupancy; (2) Federal agency section 7 consultations for proposed projects; (3) establishment of 400-ac (162-ha) PACs around owl sites; (4) three levels of habitat management: Protected areas, unoccupied project areas (which we consider restricted areas), and other forest and woodland types; (5) the establishment of 100-ac (40.5-ha) core areas around nest trees or roost groves where no trees are harvested; (6) no trees are harvested within a 250-ac (101-ha) area within PACs during the breeding season (March 1 through August 31); and (7) additional management guidelines are also incorporated, for example, addressing steep slopes, road building, and unevenaged silvicultural methods. We formally consulted with the

BIA on the implementation of the Mescalero MSO Management Plan and concluded the project would not jeopardize the continued existence of the owl (Service 2001). The Mescalero MSO Management Plan is designed to manage the owl on the Mescalero Nation generally following the tenets recommended in the Recovery Plan. We reviewed the document in early 2001 and again for this final rule and find that it provides a conservation benefit to the owl. In addition, our economic analysis found that the Mescalero Apache Tribe expects that the designation could affect its timber industry, potentially impacting $5 million in sawmill revenues and 160 jobs.

The BIA indicated and we also found in our discussions with the Mescalero Apache Tribe, which occurred during the development of the economic analysis, that the designation of critical habitat could be expected to adversely impact our working relationship with the Mescalero Apache Tribe. The BIA and Mescalero Apache Tribe also indicated and we agree that Federal regulation through critical habitat designation would be viewed as an unwarranted and unwanted intrusion into tribal natural resource programs. Our working relationship with the Mescalero Apache Tribe has been extremely beneficial in implementing natural resource programs of mutual interest. Similar to Navajo Nation and San Carlos Apache, the Mescalero Apache also participate on a RU working group, the Basin and Range East. This relationship allows ideas, information, and concerns to be incorporated into management actions for the

recovery of the owl. Participation in this working team also facilitates dialogue between other land management agencies, the Service, and the Mescalero Nation. This relationship provides a benefit to all parties involved in the conservation of the owl.

The Benefits of Exclusion Outweigh the Benefits of Inclusion

We provide the following analysis related to these tribal lands; as required by 16 U.S.C. § 1533(b)(2) [hereafter [ ]"4(b)(2)"]:

(1) Benefits of Inclusion

Few additional benefits would be derived from including Tribal lands of the Mescalero Apache, San Carlos Apache, and the Navajo Nation in a critical habitat designation of the owl beyond what will be achieved through the implementation of their management plans. The principal benefit of any designated critical habitat is that activities in and affecting such habitat require consultation under section 7 of the Act. Such consultation would ensure that adequate protection is provided to avoid destruction or adverse modification of critical habitat. However, we conclude that few regulatory benefits to the owl would be gained from a designation of critical habitat on San Carlos Apache and Navajo Tribal lands because the existing section 7 jeopardy analyses review projects for their consistency with the Recovery Plan and adverse modification analyses use the same

approach. These Tribes have already agreed under the terms of the owl management plan to evaluate the potential impacts of any proposed projects on protected and restricted areas within these Tribal lands following the criteria in the Recovery Plan for the owl and would use the same definitions of owl habitat (*i.e.*, protected or restricted habitat) for adverse modification analyses. Accordingly, we find the consultation process for a designation of critical habitat is unlikely to result in additional protections for the owl on San Carlos Apache and Navajo Tribal lands.

As discussed above, we formally consulted with the BIA on the implementation of the Mescalero MSO Management Plan and concluded in a programmatic biological opinion that the project would not jeopardize the continued existence of the owl (Service 2001). Thus, the Mescalero Tribe is not required to consult under the jeopardy standard on individual projects that fall within the guidelines of the Tribes MSO Management Plan, as they are covered under our programmatic biological opinion. As discussed above, our programmatic consultation evaluated potential impacts to protected and restricted habitat based on the guidelines in the Recovery Plan for the owl. Thus, we believe that a designation of critical habitat in this case is unlikely to result in additional protections for the owl on Mescalero Tribal lands, even if consultation on critical habitat were to occur in the future.

Another possible benefit is that the designation of critical habitat can help to educate the public

regarding potential conservation value of an area, and may focus efforts by clearly delineating areas of high conservation value for the owl. Any information about the owl and its habitat that reaches a wide audience, including other parties engaged in conservation activities, would be considered valuable. These Tribes are currently working with the Service to address habitat and conservation needs for the owl. Additionally, we anticipate that these Tribes will continue to actively participate in RU working groups, providing for the timely exchange of management information. The educational benefits important for the long-term survival and conservation of the owl are being realized. Educational benefits will continue on these lands if they are excluded from the designation, because the management/conservation plans already recognize the importance of those habitat areas to the owl.

For these reasons, then, we believe that designation of critical habitat would have few additional benefits beyond those that will result from continued consultation under the jeopardy standard.

[2] Benefits of Exclusion

The benefits of excluding tribal lands of the Mescalero Apache Tribe, San Carlos Apache Tribe, and the Navajo Nation from designated critical habitat are more significant. They include: (1) The advancement of our Federal Indian Trust obligations and our deference to tribes to develop and implement

tribal conservation and natural resource management plans for their lands and resources, which includes the owl; (2) the maintenance of effective working relationships to promote the conservation of the owl and its habitat; (3) the allowance for continued meaningful collaboration and cooperation in RU working groups; (4) the provision of conservation benefits to forest and canyon ecosystems and the owl and its habitat that might not otherwise occur; and (5) the reduction or elimination of administrative and/or project modification costs as analyzed in the economic analysis.

Through the years since the owl was listed as threatened, we have met with Tribes to discuss how each might be affected by the designation of critical habitat. As such, we established effective working relationships with the Mescalero Apache Tribe, San Carlos Apache Tribe, and the Navajo Nation. As part of our relationship, we provided technical assistance to each of these Tribes to develop measures to conserve the owl and its habitat on their lands. These measures are contained within the tribal management/conservation plans that we have in our supporting record for this decision (see discussion above). These proactive actions were conducted in accordance with Secretarial Order 3206, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act" (June 5, 1997); the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951); Executive Order

13175; and the relevant provision of the Departmental Manual of the Department of the Interior (512 DM 2). We believe that these Tribes should be the governmental entities to manage and promote the conservation of the owl on their lands. During our meetings with each of these Tribes, we recognized and endorsed their fundamental right to provide for tribal resource management activities, including those relating to forest and canyon ecosystems.

The designation of critical habitat would be expected to adversely impact our working relationship with the Mescalero Apache, San Carlos Apache, and Navajo Nation. In fact, during our discussions with each of the Tribes, we were informed that critical habitat would be viewed as an intrusion on their sovereign abilities to manage natural resources in accordance with their own policies, customs, and laws. To this end, we found that each Tribe would prefer to work with us on a Government-to-Government basis. For these reasons, we believe that our working relationships with the Mescalero Apache, San Carlos Apache, and Navajo Nation would be better maintained if these tribes are excluded from the designation of critical for the owl. We view this as a substantial benefit.

We indicated in the proposed rule (July 21, 2000; 65 FR 45336) that the Mescalero Apache, San Carlos Apache, and Navajo Nation were working on owl management plans. Similarly, in the reopening of the comment period on this rule (November 18, 2003; 68 FR 65020), we asked for information and comments

concerning our preliminary conclusions regarding the exclusion of Tribal lands under section 4(b)(2) of the Act. During the comment period, we received input from these three Tribes, and the Southern Ute Tribe, White Mountain Apache Tribe, Hualapai Tribe, BIA's Southwestern Regional Office, BIA's Western Regional Office, and Jicarilla Apache Tribe. All of these commenters expressed the view that designating critical habitat for the owl on the Mescalero Apache, San Carlos Apache, and Navajo Nation lands would adversely affect the Service's working relationship with all Tribes. Many noted the beneficial cooperative working relationships between the Service and Tribes have assisted in the conservation and recovery of listed species and other natural resources. For example, the Service's relationship with Mescalero Apache resulted in the successful prosecution of an owl take case under section 9 of the Act, related to an arsonist in 2002 (Service 2002). They indicated that critical habitat designation on the Mescalero Apache, San Carlos Apache, and Navajo Nation would amount to additional Federal regulation of sovereign Nations' lands, and would be viewed as an unwarranted and unwanted intrusion into Tribal natural resource programs. We conclude that our working relationships with these Tribes on a government-to-government basis have been extremely beneficial in implementing natural resource programs of mutual interest, and that these productive relationships would be compromised by critical habitat designation of these Tribal lands.

In addition to management/conservation actions described above for the conservation of the owl, we anticipate future management/conservation plans to include conservation efforts for other listed species and their habitat (*e.g.*, southwestern willow flycatcher). We believe that many Tribes and Pueblos are willing to work cooperatively with us to benefit other listed species, but only if they view the relationship as mutually beneficial. Consequently, the development of future voluntarily management actions for other listed species will likely be contingent upon whether these Tribal lands are designated as critical habitat for the owl. Thus, a benefit of excluding these lands would be future conservation efforts that would benefit other listed species.

The economic analysis found that the BIA has conducted 13 informal and 5 formal consultations for the owl on Tribal lands since 1993 and estimates that same number for the next 10 years. The economic analysis also estimated 3 informal consultations would occur with the NPS for Navajo National Monument and none would occur with Canyon de Chelly. Potentially affected activities include administrative efforts, timber harvest, fire management, grazing, coal mining and recreation. Total estimated administrative and project modification costs of these consultations ranged from $110,000 to $1.1 million (BIA) and $12,000 to $248,000 (NPS). These consultations would occur regardless of whether critical habitat is designated, because the species occupies these lands and section 7 consultations under the jeopardy

standards will still be required for activities affecting the owl. The economic analysis estimated that total administrative and project modification costs over the next ten years for the BIA ranged from $113,000 to $1,111,000. The costs attributed to critical range from slightly higher to substantially higher. The BIA indicated that critical habitat designation could place "a significant financial burden" upon Tribes. For example, they found that the Mescalero Apache Tribe could be burdened with more governmental constraints and a lack of funds to comply with section 7. As discussed above, we already evaluate the potential impacts of any proposed projects on protected or restricted areas; however, any additional costs that may be incurred as a result of a designation of critical habitat are avoided if we exclude the Tribe from the designation of critical habitat. We find this to be a significant financial benefit for these Tribes, the Service, and the BIA.

The economic analysis found that designation of critical habitat and continued efforts to protect the owl may impact timber harvest, which could affect all three Tribes in the future. For example, the Mescalero Agency, BIA, indicated that additional section 7 consultation efforts and the potential delay of projects resulting from section 7 consultation of critical habtiat [sic] could affect timber harvest on Mescalero Apache lands. In particular, for the Mescalero and the San Carlos, both of which are actively managing their lands for commercial timber harvest and have interests in operating sawmills, any

reduction in timber harvest could result in fewer jobs and revenues for the Tribes. The Mescalero Apache Tribe indicated that the designation could affect its timber industry, potentially impacting $5 million in sawmill revenues and 160 jobs. Commercial timber harvests on Navajo Nation lands were enjoined by the Arizona District Court in *Silver* v. *Thomas*, CIV 94-337-PHX-RGS (D.AZ 1994) until a new forest management plan is completed. This process is still ongoing, so that the Navajo are not currently able to undertake commercial timber operations. However, the Tribe has indicated its intention to continue these types of efforts once the current injunction is lifted. The exclusion of Tribal lands from this designation will avoid any potential future economic impacts related to the designation of critical habitat.

In summary, the benefits of including the Mescalero Apache, San Carlos Apache, and Navajo Nation in the critical habitat designation are limited to a potential benefit gained through the requirement to consult under section 7 and consideration of the need to avoid adverse modification of critical habitat and potential educational benefits. However, as discussed in detail above, we believe these benefits are provided for through other mechanisms. The benefits of excluding these areas from being designated as critical habitat for the owl are more significant, and include encouraging the continued development and implementation of the tribal management/conservation measures such as monitoring, survey, and fire-risk reduction activities that are planned for the future or

are currently being implemented. These programs will allow the Tribes to manage their natural resources to benefit forest and canyon ecosystems for the owl, without the perception of Federal Government intrusion. This philosophy is also consistent with our published policies on Native American natural resource management. The exclusion of these areas will likely also provide additional benefits to the owl and other listed species that would not otherwise be available due to the Service's ability to encourage and maintain cooperative working relationships with other Tribes and Pueblos. We find that the benefits of excluding these areas from critical habitat designation outweigh the benefits of including these areas.

As noted above, the Service may exclude areas from the critical habitat designation only if it is determined, "based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned." Here, we have determined that exclusion of the Mescalero Apache, San Carlos Apache, and Navajo Nation from the critical habitat designation will not result in the extinction of the owl. First, activities on these areas that may affect the owl will still require consultation under section 7 of the Act. Section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species. Therefore, even without critical habitat designation on these

lands, activities that occur on these lands cannot jeopardize the continued existence of the owl. Second, each of the Tribes have committed to protecting and managing according to their management/conservation plans and natural resource management objectives. In short, the Tribes have committed to greater conservation measures on these areas than would be available through the designation of critical habitat. With these natural resource measures, we have concluded that this exclusion from critical habitat will not result in the extinction of the owl, chiefly because the management/conservation plans are generally based on the habitat-management tenets of the Recovery Plan. Accordingly, we have determined that the Mescalero Apache, San Carlos Apache, and Navajo Nation should be excluded under subsection 4(b)(2) of the Act because the benefits of excluding these lands from critical habitat for the owl outweigh the benefits of their inclusion and the exclusion of these lands from the designation will not result in the extinction of the species.

Lands Owned by Navajo Nation and Managed by National Park Service (NPS)

During our review of the Navajo Management Plan for the owl, we found that there is a unique land ownership of Navajo National Monument and Canyon de Chelly wherein the land is owned by the Navajo Nation, but under the management authority and administration of the NPS. We found that this unique situation was envisioned by the Navajo Management

Plan: " * * * lands administered by the NPS are subject to the same laws as elsewhere on the Navajo Nation, and are then subject to this [Management] Plan." After our previous designation, we found that the designation on these lands created confusion. In fact, we were unable to accurately map the units within and outside of Navajo National Monument and Canyon de Chelly to depict the distinction of management authority. We also found in our reanalysis of the Navajo Management Plan that the Navajo Fish and Wildlife Department will assist NPS managers, as requested, with developing or maintaining consistent land-use policies that incorporate these owl management tenets. We consider these lands to be within the existing Navajo Management Plan and therefore excluded from the designation. Nevertheless, the NPS would still be required to consult under section 7 jeopardy provisions on any projects conducted within these areas that would affect the owl.

Relationship to Section 4(a)(3) of the Act

The Sikes Act Improvements Act of 1997 (Sikes Act) requires each military installation that includes land and water suitable for the conservation and management of natural resources to complete an integrated natural resources management plan (INRMP) by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found there. Each INRMP includes an assessment of the ecological needs on the installation, including needs

to provide for the conservation of listed species; a statement of goals and priorities; a detailed description of management actions to be implemented to provide for these ecological needs; and a monitoring and adaptive management plan. We consult with the military on the development and implementation of INRMPs for installations with listed species and critical habitat.

The 2004 National Defense Authorization Act (Pub. L. 108-136, November 2003), in Section 318, Military Readiness and Conservation of Protected Species (Defense Authorization Act) makes the following amendment to section 4(a)(3) of the Act: the Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an INRMP prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation. Therefore, lands essential to the conservation of a species that are owned or managed by DOD and covered by INRMPs are excluded from critical habitat designations if they meet that criteria.

The Camp Navajo Army Depot, Arizona, was proposed as critical habitat. We have been providing technical assistance to Camp Navajo Army Depot for the last 3 years regarding the development of their INRMP and natural resources on the installation. The INRMP was finalized in late 2001. However, the

INRMP was finalized without seeking signatures from our Region 2 Regional Director and the State Director of the Arizona Game and Fish Department (AGFD) (Service 2001). Per the Sikes Act and the Army's regulations, the INRMP is only final when the Service and AGFD (concurring agencies) have signed off on the INRMP. Because the INRMP was completed without signatures from concurring agencies, and when we reviewed early drafts we found that it did not provide a conservation benefit to the owl, we find Camp Navajo Army Depot's INRMP does not conform to the Defense Authorization Act. Moreover, we did not receive any comments from Camp Navajo Army Depot regarding the proposed designation. Because the base currently contains protected and restricted habitat and primary constituent elements, we find these lands to be essential to the conservation of the owl. For these reasons, these lands are designated as critical habitat.

U.S. Naval Observatory Flagstaff Station, Arizona, was proposed as critical habitat. We reviewed their final INRMP in 2001 and concluded that it provides a benefit to the species. The INRMP provides management direction for the owl on this installation. Thus, we are not including this area in the final designation of critical habtiat [sic] for the owl pursuant to section 4(a)(3) of the Act.

Fort Carson, Colorado, was proposed as critical habitat for the owl. Fort Carson completed their final INRMP on April 8, 2003, which includes specific guidelines for protection and management for the

owl. We have reviewed their final INRMP relative to whether the plan provides a benefit to the subject species. It is our determination that the final INRMP for Fort Carson provides a benefit to the owl. Thus, we are not including Fort Carson in the final designation of critical habtiat [sic] for the owl pursuant to section 4(a)(3) of the Act.

Fort Huachuca was proposed as critical habitat, but completed an INRMP in 2001. The plan helps guide natural resources management on Fort Huachuca, while supporting the military's mission. In 2002, we completed a biological opinion for Fort Huachuca on all installation activities, including its INRMP (Service 2002a). Fort Huachuca conducts owl monitoring and surveys and its projects are designed to be consistent with and complement the Recovery Plan (Service 2002a). We found that the proposed action was not likely to jeopardize the continued existence of the owl or adversely modify designated critical habitat. Because the INRMP provides a benefit to the owl, Fort Huachuca is not included in the designation of critical habitat for the owl pursuant to section 4(a)(3) of the Act.

Effect of Critical Habitat Designation

Section 7 Consultation

The regulatory effects of a critical habitat designation under the Act are triggered through the provisions of section 7, which applies only to activities conducted, authorized, or funded by a Federal agency

(Federal actions). Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR 402. We are currently reviewing the regulatory definition of adverse modification in relation to the conservation of the species. Individuals, organizations, States, local governments, and other non-Federal entities are not affected by the designation of critical habitat unless their actions occur on Federal lands, require Federal authorization, or involve Federal funding. Please refer to the proposed rule to designate critical habitat for the owl for a detailed discussion of section 7 of the Act in relation to the designation of critical habitat (65 FR 45336; July 21, 2000). Federal actions not affecting listed species or critical habitat and actions on non-Federal lands that are not federally funded, authorized, or permitted do not require section 7 consultation.

Activities on Federal lands that may affect the owl or its critical habitat will require section 7 consultation. Activities on State or private lands requiring a permit from a Federal agency, such as a permit from the FS, or some other Federal action, including funding (*e.g.*, Federal Highway Administration, Federal Aviation Administration, or Federal Emergency Management Agency) will continue to be subject to the section 7 consultation process only for actions that may affect the owl, but not for critical habitat because areas under State or private ownership are not included in the critical habitat designation by definition. Similarly, Tribal lands that we did

not designate as critical habitat will also continue to be subject to the section 7 consultation process only for actions that may affect the owl. The FS WUI project areas that we excluded from this designation have already been analyzed through the consultation process and biological opinions. Other projects within these areas will continue to be consulted upon for potential effects to the owl and critical habitat. Federal actions not affecting listed species or critical habitat and actions on non-Federal lands that are not federally funded or regulated do not require section 7 consultation.

Section 7(a)(4) of the Act requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. Conference reports provide conservation recommendations to assist the agency in eliminating conflicts that may be caused by the proposed action. The conservation recommendations in a conference report are advisory.

We may issue a formal conference report if requested by a Federal agency. Formal conference reports on proposed critical habitat contain a biological opinion that is prepared according to 50 CFR 402.14, as if critical habitat were designated. We may adopt the formal conference report as a biological opinion if the critical habitat is designated and if no significant new information or changes in the action alter the content of the opinion (see 50 CFR 402.10(d)).

Regulations at 50 CFR 402.16 also require Federal agencies to reinitiate consultation in instances where we have already reviewed an action for its effects on a listed species if critical habitat is subsequently designated. Consequently, some Federal agencies may request reinitiation of consultation or conferencing with us on actions for which formal consultation has been completed, if those actions may affect designated critical habitat or adversely modify or destroy critical habitat.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe in any proposed or final regulation that designates critical habitat those activities involving a Federal action that may adversely modify such habitat, or that may be affected by such designation. Activities that may result in the destruction or adverse modification of critical habitat include those that alter the primary constituent elements to an extent that the value of critical habitat for the conservation of the owl is appreciably reduced. We note that such activities may also jeopardize the continued existence of the species.

A number of Federal agencies or departments fund, authorize, or carry out actions that may affect the owl and its critical habitat. Among these agencies are the FS, BIA, BLM, Department of Defense, Department of Energy, NPS, and Federal Highway Administration. We have reviewed and continue to review numerous activities proposed within the range of the owl that are currently the subject of formal or informal section 7 consultations. Actions on Federal

lands that we reviewed in past consultations on effects to the owl include land management plans; land acquisition and disposal; road construction, maintenance, and repair; timber harvest; livestock grazing and management; fire/ecosystem management projects (including prescribed natural and management ignited fire); powerline construction and repair; campground and other recreational developments; and access easements. We expect that the same types of activities will be reviewed in section 7 consultations for designated critical habitat.

Actions that would be expected to both jeopardize the continued existence of the owl and destroy or adversely modify its critical habitat would include those that significantly and detrimentally alter the species' habitat over an area large enough that the likelihood of the owls' persistence and recovery, either range-wide or within a RU, is significantly reduced. Thus, the likelihood of an adverse modification or jeopardy determination would depend on the baseline condition of the RU and the baseline condition of the species as a whole. Some RUs, such as the Southern Rocky Mountains-New Mexico and Southern Rocky Mountains-Colorado, support fewer owls and owl habitat than other RUs and, therefore, may be less able to withstand habitat-altering activities than RUs with large contiguous areas of habitat supporting higher densities of owls.

Actions not likely to destroy or adversely modify critical habitat include activities that are implemented in compliance with the Recovery Plan, such as

thinning trees less than 9 inches (23 centimeters) in diameter in PACs; fuels reduction to abate the risk of catastrophic wildfire; "personal use" commodity collection such as fuelwood, latillas and vigas, and Christmas tree cutting; livestock grazing that maintains good to excellent range conditions; and most recreational activities including hiking, camping, fishing, hunting, cross-country skiing, off-road vehicle use, and various activities associated with nature appreciation. We do not expect any restrictions to those activities as a result of this critical habitat designation. In addition, some activities may be considered to be of benefit to owl habitat and, therefore, would not be expected to adversely modify critical habitat. Examples of activities that could benefit critical habitat may include some protective measures such as fire suppression, prescribed burning, brush control, snag creation, and certain silvicultural activities such as thinning. In 2001, the Recovery Team noted that there is currently not enough information to provide specific targets or quantities for the retention of key habitat components during fuels reduction activities in restricted habitat (Service 2001). However, current research is increasing our knowledge (*e.g.*, see Ganey *et al.* 2003; May and Gutierrez 2002). Consequently, managers should use their discretion and site-specific information to balance fuels management prescriptions with the conservation of the owl. Nevertheless, we are aware that some activities, such as prescribed burns, have been conducted and data indicate that primary constituent elements have

been retained (*e.g.*, see Service 2002; Grand Canyon National Park Prescribed Fire).

If you have questions regarding whether specific activities will likely constitute destruction or adverse modification of critical habitat, contact the State Supervisor, New Mexico Ecological Services Field Office (see **ADDRESSES** section). If you would like copies of the regulations on listed wildlife or have questions about prohibitions and permits, contact the U.S. Fish and Wildlife Service, Division of Endangered Species, P.O. Box 1306, Albuquerque, New Mexico 87103 (telephone 505-248-6920; facsimile 505-248-6788).

Effects on Tribal Trust Resources From Critical Habitat Designation on Non-Tribal Lands

In complying with our Tribal trust responsibilities, we communicated with all tribes potentially affected by the designation of critical habitat for the owl. We solicited and received information from the tribes (see discussion above) and arranged meetings with the tribes to discuss potential effects to them or their resources that may result from critical habitat designation. Please refer to the economic analysis and environmental assessment where the potential impacts are reviewed.

Economic Analysis

Section 4(b)(2) of the Act requires us to designate critical habitat on the basis of the best scientific and

commercial data available and to consider the economic and other relevant impacts of designating a particular area as critical habitat. We based this designation on the best available scientific information, and believe it is consistent with the Recovery Plan and recommendations of those team members. We utilized the economic analysis, and took into consideration comments and information submitted during the public hearing and comment periods to make this final critical habitat designation. We may exclude areas from critical habitat upon a determination that the benefits of such exclusions outweigh the benefits of specifying such areas as critical habitat. We cannot exclude such areas from critical habitat when such exclusion will result in the extinction of the species.

The economic effects already in place due to the listing of the owl as threatened is the baseline upon which we analyzed the economic effects of the designation of critical habitat. The critical habitat economic analysis examined the potential economic effects of efforts to protect the owl and its critical habitat. The economic effects of a designation were evaluated by measuring changes in national, regional, or local indicators. A draft analysis of the economic effects of the proposed owl critical habitat designation was prepared and made available for public review (65 FR 63047; March 26, 2004). Because of the regulatory history, additional consultations resulting from this rulemaking are expected to be minimal. The Recovery

Plan, providing extensive guidance on owl conservation, was published in 1995. Thus, as discussed in our economic analysis, action agencies have been aware of the owl and are already consulting on a wide range of activities within the designation. Therefore, we concluded in the final analysis, which reviewed and incorporated public comments, that no significant economic impacts (*i.e,* will not have annual effect on the economy of $100 million or more or affect the economy in a material way as defined by Office of Management and Budget and discussed further in the "Required Determinations" section below) are expected from critical habitat designation above and beyond that already imposed by listing the owl. A copy of the economic analysis is included in our supporting record and may be obtained by contacting the New Mexico Ecological Services Field Office (see **ADDRESSES** section) of from our Web site *http://ifw2es.fws.gov/mso/.*

Impacts associated solely with this rulemaking are expected to result in additional administrative costs to Action agencies due to additional consultation and documentation requirements. These additional administrative costs are expected to be on the order of $72,000 to $238,000 annually. Based on a review of consultation records, there has not been a measurable increase in the number of consultations occurring annually in those areas where owl critical habitat was finalized in 2001. Some additional administrative costs are expected for discussing adverse modification

in the consultation documentation and for reinitiating consultations. Based on discussions with land management agency personnel, these costs will be small, as the amount of additional work associated with these efforts is not expected to be significant. In particular, our economic analysis found that FS Region 3 personnel are already managing owl habitat in compliance with Recovery Plan guidance, indicating this rulemaking will not result in additional impacts, with the exception of a slight increase in administrative efforts. Moreover, FS personnel Regions 2 and 4 believe that for activities within the designation, the cost of having to address the owl in their required environmental documentation is only a minor cost because little activity is occurring or planned within the designation. Additionally, the BLM in Colorado and Arizona indicated that critical habitat has been designated since 2001 and has not resulted in any significant increase in workload. Finally, the BLM in Utah indicated that only limited impacts on oil and gas activities related to this rulemaking are expected in the future because owl-related delays in drilling activities would be expected even in the absence of this designation.

The amount of additional administrative costs attributable to this rulemaking (*i.e.*, that would not occur absent the designation), is likely to be only a portion of the total forecast administrative costs. The future administrative costs attributable solely to this rulemaking are expected to be on the order of 25 percent of total forecast administrative costs of

$72,000 to $238,000 annually. Based on a review of consultations that have occurred in the areas where critical habitat was designated in 2001 and on discussions with land management personnel and affected entities, additional future project modification costs are unlikely to occur under this current designation. Therefore, the incremental costs associated with this rulemaking are expected to be minimal.

Required Determinations

Regulatory Planning and Review

In accordance with Executive Order 12866, this document is a significant rule in that it may raise novel legal and policy issues, but it is not anticipated to have an annual effect on the economy of $100 million or more or affect the economy in a material way. Due to the tight timeline for publication in the **Federal Register**, the Office of Management and Budget (OMB) has not formally reviewed this rule. We prepared an economic analysis of this action to meet the requirement of section 4(b)(2) of the Act to determine the economic consequences of designating the specific areas as critical habitat. The draft economic analysis was made available for public comment and we considered those comments during the preparation of this final rule. The economic analysis indicates that this rule will not have an annual economic effect of $100 million or more or adversely affect any economic sector, productivity, competition, jobs, the environment, or other units of government.

Under the Act, critical habitat may not be destroyed or adversely modified by a Federal agency action; the Act does not impose any restrictions related to critical habitat on non-Federal persons unless they are conducting activities funded or otherwise sponsored or permitted by a Federal agency. Because of the potential for impacts on other Federal agencies' activities, we reviewed this action for any inconsistencies with other Federal agency actions. Based on our economic analysis and information related to implementing the listing of the species such as conducting section 7 consultations, we believe that this designation will not create inconsistencies with other agencies' actions or otherwise interfere with an action taken or planned by another agency, nor will it materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients.

Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*)

Under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (*i.e.*, small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule

will not have a significant economic impact on a substantial number of small entities. SBREFA amended the Regulatory Flexibility Act (RFA) to require Federal agencies to provide a statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities. SBREFA also amended the RFA to require a certification statement. We are hereby certifying that this rule will not have a significant effect on a substantial number of small entities.

According to the Small Business Administration, small entities include small organizations, such as independent nonprofit organizations, and small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents, as well as small businesses defined at 13 CFR 121.201. Small businesses that are potentially impacted by the critical habitat designation for the owl, as identified in the final economic analysis, include the timber industry (*i.e.*, timber tract operations, logging, support activities for forestry, wood producer manufacturing, and pulpmills); livestock grazing industry (*i.e.*, beef cattle ranching and farming); oil and gas industry (*i.e.*, oil and gas extraction); and rock quarry industry (*i.e.*, stone mining and quarrying).

SBREFA does not explicitly define either "substantial number" or "significant economic impact." Consequently, to assess whether a "substantial number" of small entities is affected by this designation, this analysis considers the relative number of small

entities likely to be impacted in the area. Similarly, this analysis considers the relative cost of compliance on the revenues/profit margins of small entities in determining whether or not entities incur a "significant economic impact." Only small entities that are expected to be directly affected by the designation are considered in this portion of the analysis. This approach is consistent with several judicial opinions related to the scope of the RFA (*Mid-Tex Electric Co-op Inc.* v. *F.E.R.C.*, 773 F.2d 327 (D.C. Cir. 1985) and *American Trucking Associations, Inc.* v. *U.S. E.P.A.*, 175 F.3d 1027, (D.C. Cir. 1999)).

To determine if the rule would affect a substantial number of small entities, we considered the number of small entities affected within particular types of economic activities (*e.g.*, grazing, oil and gas production, timber harvesting, etc.). We applied the "substantial number" test individually to each industry to determine if certification is appropriate. In estimating the numbers of small entities potentially affected, we also considered whether their activities have any Federal involvement; some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation. Designation of critical habitat only affects activities conducted, funded, or permitted by Federal agencies; non-Federal activities are not affected by the designation. Federal agencies are already required to consult with us under section 7 of the Act on activities that they fund, permit, or implement that may affect the owl.

The primary projects and activities by private entities that might be directly affected by the designation include the timber industry, livestock grazing industry, oil and gas industry, and rock quarry industry. Based on the final economic analysis we address the potential impacts to small businesses in each of these industries below.

Timber Industry Small Business Impacts

Limited data are available on the number of timber-related small businesses in the region or the average revenues of small businesses in this industry. Available data suggest that approximately 84 percent of timber-related businesses in the affected region are small businesses. The timber industry in the southwest has declined over the past 10 years due to a variety of factors, including owl related conservation activities. These factors include changes in the FS forest timber sales program at the national level, injunctions that halted timber sales in the region, and changes in regional FS forest management objectives. Since 1992, at least 15 mills have closed in the region, leaving approximately 15 sawmills currently operating in Arizona and New Mexico with an annual capacity of 61 MMBF. Timber harvest within FS Region 3 forests has declined over the past 15 years from an annual harvest of 148 MMBF per year, to the current level of 20 MMBF harvested in 2002. Lumber production in the region has seen similar declines. Current lumber production in the four corners region was 187 MMBF in 2002.

Without owl-related conservation efforts, up to an additional 60 MMBF per year in timber harvest could have been available to the timber industry from FS Region 3 forests. This forecast high-end impact translates into approximately 78 MMBF in lost lumber production per year. As these are ongoing annual impacts related to past conservation actions, the timber industry has likely already adjusted to the reduced level of timber harvest from the national forests. Thus, future impacts to existing timber-related businesses in the region, all of whom are likely to be small businesses, are unlikely. These impacts would only occur if owl conservation efforts resulted in additional reductions in timber supply, above the forecast upper bound estimates. Given the current level of timber sales from FS Region 3 national forests, it is worth noting that sawmills operating in the region are likely dependent on either Tribal or private timber sources for their supply.

Livestock Grazing Small Business Impacts

Approximately 1,500 permittees grazed cattle on FS Region 3 forests during the past three years (2000 to 2002) and most of these operations are small businesses. Of these, approximately 850 permittees graze in the area proposed as critical habitat in FS Region 3 national forests. For purposes of this analysis, these are all assumed to be small entities. A number of these ranchers will be impacted by ongoing owl conservation activities, which, along with other factors including drought, result in limitations on the

number of authorized animal unit months (AUMs) permitted on FS Region 3 lands. The expected reduction in AUMs is based on an examination of historical grazing levels and section 7 consultations. The number of AUMs grazing in proposed owl critical habitat is assumed to be proportional by acreage to the total number of AUMs grazed in a particular NF. The economic analysis finds that reductions in AUMs as a result of owl conservation measures, elk, and other threatened and endangered species may range from 10 percent to 50 percent for allotments that cross owl protected activity centers. In addition, future impacts are limited to those allotments that have yet to undergo NEPA analysis and associated section 7 consultation. Based on these assumptions, the estimated annual reduction is approximately 3,100 to 15,600 AUMs on FS Region 3 lands.

Because information is not available on the specific permittees most likely to experience a reduction in authorized AUMs, the analysis uses two approaches to estimate impacts on small businesses related to reductions in AUMs. First, this analysis estimates the number of permittees that could possibly experience a complete reduction in their authorized AUMs. Second, the analysis estimates the impact on each permittee in the critical habitat designation, if the impacts were evenly distributed. Based on information on authorized AUMs and number of permittees on FS Region 3 lands, the typical permittee grazes approximately 1,070 AUMs. Given this, a forecast annual reduction in AUMs of 3,100 to 15,600

is equivalent to the total AUMs grazed by 3 to 15 permittees. Thus, if the total impacts were to affect the smallest number of permittees, less than two percent of grazing permittees in critical habitat would be affected. If the impacts of a reduction in AUMs were evenly distributed across all 850 permittees in critical habitat. This would result in an annual reduction of 4 to 19 AUMs per permittee. Given that permittees typically graze approximately 1,070 AUMs, this represents a reduction of less than two percent of AUMs per permittee.

Oil and Gas Industry Small Business Impacts

Impacts to oil and gas extraction from owl conservation activities have the potential to impact some small businesses operating in the New Mexico and Utah region. Based on historical consultation records, impacts on oil and gas operations in the past as a result of owl conservation efforts have been limited. However, given expected growth of oil and gas operations and exploration in the proposed critical habitat designation in Utah, there is some potential for small businesses to experience greater impacts in the future. Expected future impacts on the oil and gas industry include administrative costs, project modification costs, and regional impacts resulting from delays to drilling activities.

Estimated impacts related to administrative efforts and project modifications are likely to be minimal on a per-business basis. Project modifications

specific to oil and gas activities are forecast to range from $1,000 to $25,000 per company. However, some small businesses in this industry will likely experience localized impacts related to the owl and the critical habitat designation. For example, as discussed in its comments, Bill Barrett Corporation (BBC) spent approximately $94,000 to conduct surveys for owl in a project area within previously finalized owl critical habitat in Utah. This corporation estimates that owl surveys cost them from $3 to $6 an acre.

There is also some potential for future project modifications to include directional drilling, which could mean greater impacts to small businesses in the New Mexico and Utah area. However, the extent to which directional drilling may be required in order to protect the owl and its habitat is currently unknown; this drilling method has not been required in the past, and is not widely used in the region.

Estimated impacts related to delays caused by owl surveying efforts or breeding season restrictions could affect operators in the CP-15 critical habitat unit in Utah, on BLM lands. While regional economic impacts resulting from owl-related delays are estimated, the analysis expects that producers will likely shift production to other locations, if not in the region than elsewhere; thus, producer surplus losses are not expected. However, if oil and gas producers are unable to shift production elsewhere, up to five companies could be impacted per year, assuming each delayed well belonged to an individual company. The

impact of the loss of one well would depend on the finances of the company. Currently, the majority of the leases in the area are held by BBC, a small business, based in Denver, Colorado. BBC estimates that a typical well in the area has a net present value of $400,000. If five wells are delayed each year, this could be considered the equivalent of precluding drilling of five wells if substitute drilling locations are unavailable. If all five wells belonged to BBC, this could result in an annual impact of $2.0 million. In comparison, BBC estimates that its revenues from production in one area (the Southern Uintah Basin) are in excess of $65 million per year.

Based on a review of operators in Carbon County, Utah, the majority of operators in this industry are headquartered outside of Utah. Oil and gas companies operating in Carbon County, Utah, likely to be directly impacted by owl related conservation efforts are located in a variety of States, including Texas, Oklahoma and Alabama, among others. Therefore, the relevant area for purposes of this analysis is the U.S.

There are approximately 7,680 small businesses in the oil and gas extraction sector in the U.S. The total number of oil and gas businesses operating in the critical habitat designation in New Mexico and Utah is likely in the range of 150 operators. Given the large number of oil and gas businesses nationwide, the number of potentially affected small businesses is only a small portion of small oil and gas businesses nationwide.

Stone Mining and Quarrying Industry Small Business Impacts

Impacts to small businesses in this industry resulting from owl conservation efforts are likely to be limited to one rock quarry operator. The quarry project area falls within critical habitat, but is not included in the designation by definition since it is private property, and is permitted through the State. While there is no Federal nexus, the quarry operator has been in negotiation with the Service for an Incidental Take Permit under section 10 of the Act. This activity is voluntary, and while it is related to the owl, it would likely occur with or without the critical habitat designation. The private operator of this quarry expects to incur various costs resulting from owl conservation activities, including $60,000 to $450,000 in one time costs and $10,000 per year in ongoing monitoring costs. Because this party is a small business with limited revenues, these expenditures represent a considerable impact to this business. Available information indicates that this operator is one of 11 businesses (of which nine are small businesses) in this industry in the affected Colorado counties.

Based on the experience of this operator, there is some likelihood that other quarries adjacent to owl habitat may experience impacts related to owl conservation activities. However, a review of consultation records and communication with Service staff indicate other quarry operations are not occurring in the critical habitat designation or adjacent to owl habitat.

Therefore, additional small businesses in the stone mining industry are not expected to experience impacts resulting from owl conservation efforts.

In summary, potential impacts from restrictions on grazing on Federal lands are likely to affect some small businesses. Small business impact estimates are based on information provided by affected parties as well as information on small businesses in the region. While small business impacts on existing timber-related small businesses are unlikely, small ranchers in the region may experience some impacts. If the total impacts were to affect the least number of ranchers, no more than 15 ranchers (less than two percent of grazing permittees) would be affected. However, if the impacts were evenly distributed, owl conservation could result in a reduction of up to 19 AUMs per rancher (a reduction of less than two percent of AUMs per permittee). Impacts to small businesses in the natural gas industry from owl-related delays are not expected as long as substitute drilling locations are available. However, if gas producers are unable to shift production elsewhere, up to five companies could be impacted per year, assuming each delayed well belonged to an individual company. The impact of the loss of one well would depend on the finances of the company. Also, one small entity operating a rock quarry may experience impacts related to preparation of a habitat conservation plan for owl, but we believe these costs are associated to the listing of the owl and not the critical habitat

designation, since private land is not included by definition in this critical habitat designation.

Federal agencies must also consult with us if their activities may affect designated critical habitat. However, we believe this will result in minimal additional regulatory burden on Federal agencies or their applicants because Federal agencies are already consulting on both protected and restricted habitat pursuant to existing management agreements, and consultations use the standards from the owl recovery plan which addresses habitat management issues. Thus, as stated in the Executive Summary of our Economic Analysis, no additional economic impacts, with the exception of some additional administrative costs related to addressing critical habitat in future consultation efforts, are anticipated from the designation of critical habitat for the owl.

Designation of critical habitat could result in an additional economic burden on small entities due to the requirement to reinitiate consultation for ongoing Federal activities. However, since the owl was listed in 1993, we have conducted a variety of informal and formal consultations involving this species. Most of these consultations involved Federal projects or permits to businesses that do not meet the definition of a small entity (*e.g.*, federally sponsored projects).

In summary, we have considered whether this rule would result in a significant economic effect on a substantial number of small entities. We have concluded that this final designation of critical habitat

for the owl would not affect a substantial number of small entities. Therefore, we are certifying that the designation of critical habitat for the owl will not have a significant economic impact on a substantial number of small entities, and a final regulatory flexibility analysis is not required.

Small Business Regulatory Enforcement Fairness Act (5 U.S.C. 802(2))

Under the Small Business Regulatory Enforcement Fairness Act (5 U.S.C 801 *et seq.*), this designation of critical habitat for the owl is not considered to be a major rule. Our detailed assessment of the economic effects of this designation is described in the economic analysis. Based on the effects identified in our economic analysis, we believe that this rule will not have an effect on the economy of $100 million or more, will not cause a major increase in costs or prices for consumers, and will not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises, nor will the rule have a significant economic impact on a substantial number of small entities. Refer to the final economic analysis for additional discussion of the effects of this determination.

Executive Order 13211

On May 18, 2001, the President issued Executive Order 13211 on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. The purpose of this requirement is to ensure that all Federal agencies "appropriately weigh and consider the effects of the Federal Government's regulations on the supply, distribution, and use of energy. The OMB has provided guidance for implementing this Executive Order that outlines nine outcomes that may constitute "a significant adverse effect" when compared without the regulatory action under consideration. One of these criteria is relevant to this analysis – increases in the cost of energy distribution in excess of one percent. Based on our economic analysis of this designation of critical habitat for the owl, we conclude that the impact to energy distribution is not anticipated to exceed the one percent threshold. Please refer to the economic analysis where the potential impacts are reviewed. Therefore, this action is not a significant energy action and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501), the Service makes the following findings:

(a) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute or regulation that would impose an enforceable duty upon State, local, Tribal governments, or the private sector and includes both "Federal intergovernmental mandates" and "Federal private sector mandates." These terms are defined in 2 U.S.C. 658(5)-(7). "Federal intergovernmental mandate" includes a regulation that "would impose an enforceable duty upon State, local, or Tribal governments" with two exceptions. It excludes "a condition of Federal assistance." It also excludes "a duty arising from participation in a voluntary Federal program," unless the regulation "relates to a then-existing Federal program under which $500,000,000 or more is provided annually to State, local, and Tribal governments under entitlement authority," if the provision would "increase the stringency of conditions of assistance" or "place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding" and the State, local, or Tribal governments "lack authority" to adjust accordingly. (At the time of enactment, these entitlement programs were: Medicaid; AFDC work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement.) "Federal private sector mandate" includes a regulation that "would impose an enforceable duty upon the private sector, except (i) a condition of

Federal assistance; or (ii) a duty arising from participation in a voluntary Federal program."

The designation of critical habitat does not impose a legally binding duty on non-Federal government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities who receive Federal funding, assistance, permits or otherwise require approval or authorization from a Federal agency for an action may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply; nor would critical habitat shift the costs of the large entitlement programs listed above on to State governments.

(b) We do not believe that this rule will significantly or uniquely affect small governments. This determination is based on information from the economic analysis conducted for this designation of critical habitat for the owl and the fact that critical habitat is only being designated on Federal lands. As such, a Small Government Agency Plan is not required.

Takings

In accordance with Executive Order 12630 ("Government Actions and Interference with Constitutionally Protected Private Property Rights"), we have analyzed the potential takings implications of designating critical habitat for the owl in a takings implications assessment. The takings implications assessment concludes that this final designation of critical habitat for the owl does not pose significant takings implications.

Federalism

In accordance with Executive Order 13132, this rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of the Interior policy, the Service requested information from, and coordinated development of this critical habitat designation with appropriate State resource agencies in New Mexico, Arizona, Colorado, and Utah. The impact of the designation on State and local governments and their activities was fully considered in the economic analysis. As discussed above, the designation of critical habitat for the owl would have little incremental impact on State and local governments and their activities.

Civil Justice Reform

In accordance with Executive Order 12988, the Office of the Solicitor has determined that the rule

does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. We are designating critical habitat in accordance with the provisions of the Act, as amended. This rule uses standard property descriptions and identifies the primary constituent elements within the designated areas to assist the public in understanding the habitat needs that are essential for the conservation of the owl.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*)

This rule does not contain new or revised information collection for which Office of Management and Budget approval is required under the Paperwork Reduction Act. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act

Our position is that, outside the Tenth Circuit, we do not need to prepare environmental analyses as defined by the NEPA in connection with designating critical habitat under the Endangered Species Act of 1973, as amended. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This assertion was upheld in the courts of the Ninth Circuit (*Douglas County* v. *Babbitt*, 48 F.3d 1495 (9th Cir. Ore. 1995), *cert. denied* 116 S. Ct. 698 (1996)[)].

However, when the range of the species includes States within the Tenth Circuit, such as that of the owl, pursuant to the Tenth Circuit ruling in *Catron County Board of Commissioners* v. *U.S. Fish and Wildlife Service*, 75 F.3d 1429 (10th Cir. 1996), we undertake a NEPA analysis for critical habitat designation. We completed an environmental assessment and finding of no significant impact on the designation of critical habitat for the owl.

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951), Executive Order 13175, and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. The critical habitat for owl does not contain any Tribal lands or lands that we have identified as impacting Tribal trust resources.

References Cited

A complete list of all references cited in this proposed rule is available upon request from the New Mexico Ecological Services Field Office (see **ADDRESSES** section).

Authors

The primary authors of this notice are the New Mexico Ecological Services Field Office staff (see **ADDRESSES** section).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulation Promulgation

■ Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations as set forth below:

PART 17 – [AMENDED]

■ 1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1544; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500; unless otherwise noted.

■ 2. Amend § 17.95(b) by revising critical habitat for the Mexican spotted owl (*Strix occidentalis lucida*) in the same alphabetical order as this species occurs in § 17.11(h).

§ 17.95 Critical habitat – fish and wildlife.

* * *

(b) *Birds.* * * *

Mexican Spotted Owl (*Strix occidentalis lucida*)

(1) Critical habitat units for the States of Arizona, Colorado, New Mexico, and Utah are depicted on the maps below. Larger maps and digital files for all four States and maps of critical habitat units in the State of New Mexico are available at the New Mexico Ecological Services Field Office, 2105 Osuna N.E., Albuquerque, New Mexico 87113, telephone (505) 346-2525. For the States of Arizona, Colorado, and Utah, maps of the critical habitat units specific to each State are available at the following Service offices – Arizona Ecological Services Field Office, 2321 West Royal Palm Road, Suite 103, Phoenix, Arizona 85021, telephone (602) 640-2720; Colorado State Sub-Office, 764 Horizon Drive South, Annex A, Grand Junction, Colorado 81506, telephone (970) 243--2778; and Utah Ecological Services Field Office, Lincoln Plaza, 145 East 1300 South, Suite 404, Salt Lake City, Utah 84115, telephone (801) 524-5001.

(2) Critical habitat units are designated in portions of McKinley, Rio Arriba, Sandoval, and Socorro Counties in New Mexico; Apache, Cochise, Coconino, Graham, and Pima Counties in Arizona; Carbon, Emery, Garfield, Grand, Iron, Kane, Washington, and Wayne Counties in Utah; and Custer,

Douglas, El Paso, Fremont, Huerfano, Jefferson, Pueblo, and Teller Counties in Colorado.

(3)(i) The primary constituent elements essential to the conservation of the owl include those physical and biological features that support nesting, roosting, and foraging. These elements were determined from studies of owl behavior and habitat use throughout the range of the owl. Although the vegetative communities and structural attributes used by the owl vary across the range of the subspecies, they consist primarily of mixed conifer forests or canyons. The mixed-conifer, pine-oak communities and canyon habitat appear to be the most frequently used community throughout most portions of the subspecies' range (Skaggs and Raitt 1988; Ganey and Balda 1989, 1994; Gutierrez and Rinkevich 1991, Service 1995). Although the structural characteristics of owl habitat vary depending on uses of the habitat (*e.g.*, nesting, roosting, foraging) and variations in the plant communities over the range of the subspecies, some general attributes are common to the subspecies' life-history requirements throughout its range.

(ii) Protected and restricted habitat are two of the three types of owl habitat discussed in the Recovery Plan and are used as the basis for defining critical habitat. Protected areas include known owl sites (PACs), areas in mixed-conifer and pine-oak types with greater than 40 percent slopes where timber harvest has not occurred in the past 20 years and administratively reserved lands, such as Wilderness Areas or Research Natural Areas. Restricted habitat

includes mixed-conifer forest, pine-oak forest, and riparian areas outside of protected areas. This final rule does not include all areas that meet the definition of protected and restricted habitat.

(iii) Canyon habitats used for nesting and roosting are typically characterized by cooler conditions found in steep, narrow canyons, often containing crevices, ledges, and/or caves. These canyons frequently contain small clumps or stringers of ponderosa pine, Douglas-fir, white fir, and/or pinyon-juniper. Deciduous riparian and upland tree species may also be present. Adjacent uplands are usually vegetated by a variety of plant associations including pinyon-juniper woodland, desert scrub vegetation, ponderosa pine-Gamble oak, ponderosa pine, or mixed-conifer. Owl habitat may also exhibit a combination of attributes between the forested and canyon types.

(iv) The primary constituent elements for the Mexican spotted owl are:

(A) Primary constituent elements related to forest structure:

(*1*) A range of tree species, including mixed conifer, pine-oak, and riparian forest types, composed of different tree sizes reflecting different ages of trees, 30 percent to 45 percent of which are large trees with a trunk diameter of 12 inches (0.3 meters) or more when measured at 4.5 feet (1.4 meters) from the ground;

(2) A shade canopy created by the tree branches covering 40 percent or more of the ground; and

(3) Large dead trees (snags) with a trunk diameter of at least 12 inches (0.3 meters) when measured at 4.5 feet (1.4 meters) from the ground.

(B) Primary constituent elements related to maintenance of adequate prey species:

(1) High volumes of fallen trees and other woody debris;

(2) A wide range of tree and plant species, including hardwoods; and

(3) Adequate levels of residual plant cover to maintain fruits, seeds, and allow plant regeneration.

(C) Primary constituent elements related to canyon habitat include one or more of the following:

(1) Presence of water (often providing cooler and often higher humidity than the surrounding areas);

(2) Clumps or stringers of mixed-conifer, pine-oak, pinyon-juniper, and/or riparian vegetation;

(3) Canyon wall containing crevices, ledges, or caves; and

(4) High percent of ground litter and woody debris.

(4) Lands located within the mapped boundaries of the critical habitat designation that are not

included in this designation, and are therefore excluded by definition, include: State and private lands, 157 wildland urban interface projects and the Penasco WUI project area that contain owls or habitat on Forest Service lands that are identified in the Wildland Urban Interface database located at http://www.fs.fed.us/r3/wui/ and addressed in the April 10, 2001, final biological opinion on the Forest Service's proposed wildland urban interface fuel treatments in New Mexico and Arizona and the September 27, 2002, final biological opinion on the Rio Penasco II Non-Programmatic Vegetation Management Project and Forest Plan Amendment. The final biological opinions are available from the New Mexico Ecological Services Field Office, 2105 Osuna Road NE, Albuquerque, NM 87113.

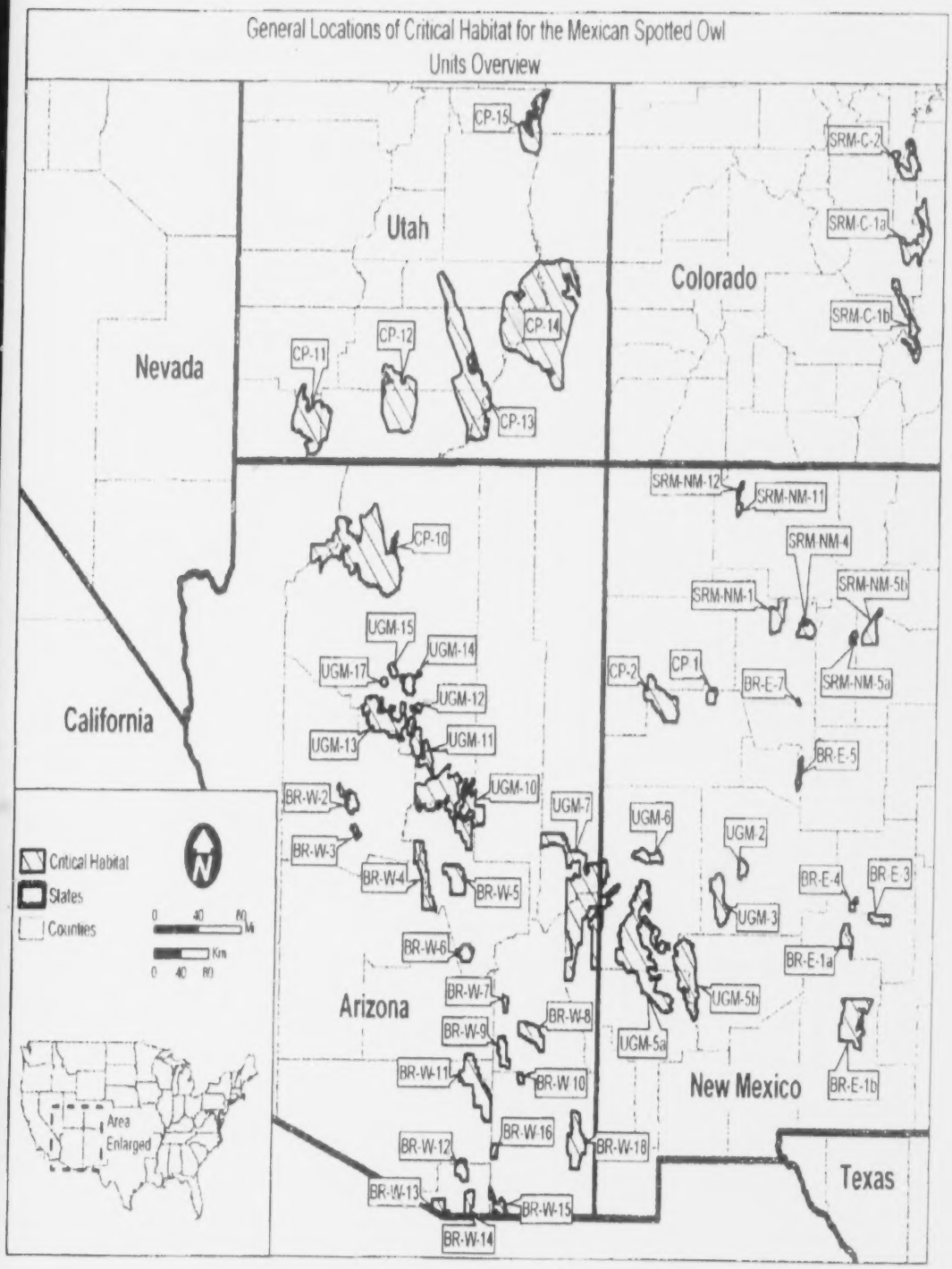
(5) Critical habitat is defined as those areas within the mapped boundaries. Federal actions within the mapped boundaries would not trigger a section 7 consultation unless they may affect the owl or affect protected or restricted habitat, which includes canyon habitat, and one or more of the primary constituent elements.

(6) The minimum mapping unit for this designation does not exclude all developed areas, such as buildings, roads, bridges, parking lots, railroad tracks, other paved areas, the lands that support these features, and other lands unlikely to contain the primary constituent elements. Federal actions limited to these areas would not trigger a section 7 consultation, unless they affect protected or restricted

habitat and one or more of the primary constituent elements in adjacent critical habitat.

(7) Overview map of general locations of critical habitat for the Mexican spotted owl follows:

BILLING CODE 4310-55-P


General Locations of Critical Habitat for the Mexican Spotted Owl
Units Overview
Utah
Colorado
Nevada
California
Arizona
New Mexico
Texas
CP-15
CP-14
CP-13
CP-12
CP-11
CP-10
CP-2
CP 1
SRM-C-2
SRM-C-1a
SRM-C-1b
SRM-NM-12
SRM-NM-11
SRM-NM-4
SRM-NM-1
SRM-NM-5b
SRM-NM-5a
BR-E-7
BR-E-5
BR-E-4
BR-E-3
BR-E-1a
BR-E-1b
UGM-15
UGM-14
UGM-17
UGM-12
UGM-13
UGM-11
UGM-10
UGM-7
UGM-6
UGM-2
UGM-3
UGM-5b
UGM-5a
BR-W-2
BR-W-3
BR-W-4
BR-W-5
BR-W-6
BR-W-7
BR-W-8
BR-W-9
BR-W-11
BR-W 10
BR-W-16
BR-W-18
BR-W-12
BR-W-13
BR-W-15
BR-W-14
Critical Habitat
States
Counties
N
0 40 80 Mi
Km
0 40 80
Area Enlarged

STATUTES

16 U.S.C. § 1532. Definitions

For the purpose of this chapter –

. . .

(5)(A) The term "critical habitat" for a threatened or endangered species means –

(i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 1533 of this title, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and

(ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 1533 of this title, upon a determination by the Secretary that such areas are essential for the conservation of the species.

(B) Critical habitat may be established for those species now listed as threatened or endangered species for which no critical habitat has heretofore been established as set forth in subparagraph (A) of this paragraph.

(C) Except in those circumstances determined by the Secretary, critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species.

---

16 U.S.C. § 1533. Determination of endangered species and threatened species

(a) Generally

(1) The Secretary shall by regulation promulgated in accordance with subsection (b) of this section determine whether any species is an endangered species or a threatened species because of any of the following factors:

(A) the present or threatened destruction, modification, or curtailment of its habitat or range;

(B) overutilization for commercial, recreational, scientific, or educational purposes;

(C) disease or predation;

(D) the inadequacy of existing regulatory mechanisms; or

(E) other natural or manmade factors affecting its continued existence.

. . .

(3)(A) The Secretary, by regulation promulgated in accordance with subsection (b) of this section and to the maximum extent prudent and determinable –

(i) shall, concurrently with making a determination under paragraph (1) that a species is an endangered species or a threatened species, designate any habitat of such species which is then considered to be critical habitat; and

(ii) may, from time-to-time thereafter as appropriate, revise such designation.

. . .

(b) Basis for determinations

(1)(A) The Secretary shall make determinations required by subsection (a)(1) of this section solely on the basis of the best scientific and commercial data available to him after conducting a review of the status of the species and after taking into account those efforts, if any, being made by any State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species, whether by predator control, protection of habitat and food supply, or other conservation practices, within any area under its jurisdiction; or on the high seas.

. . .

(2) The Secretary shall designate critical habitat, and make revisions thereto, under subsection (a)(3) of this section on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat. The Secretary may exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific and commercial data available, that the

failure to designate such area as critical habitat will result in the extinction of the species concerned.

REGULATIONS

50 C.F.R. § 424.02 Definitions.

(a) The definitions of terms in 50 CFR 402.02 shall apply to this part 424, except as otherwise stated.

. . .

(d) *Critical habitat* means (1) the specific areas within the geographical area currently occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (i) essential to the conservation of the species and (ii) that may require special management considerations or protection, and (2) specific areas outside the geographical area occupied by a species at the time it is listed upon a determination by the Secretary that such areas are essential for the conservation of the species.

---

50 C.F.R. § 424.12 Criteria for designating critical habitat.

(a) Critical habitat shall be specified to the maximum extent prudent and determinable at the time a species is proposed for listing. If designation of critical habitat is not prudent or if critical habitat is not determinable, the reasons for not designating

critical habitat will be stated in the publication of proposed and final rules listing a species. A final designation of critical habitat shall be made on the basis of the best scientific data available, after taking into consideration the probable economic and other impacts of making such a designation in accordance with § 424.19.

(1) A designation of critical habitat is not prudent when one or both of the following situations exist:

(i) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of such threat to the species, or

(ii) Such designation of critical habitat would not be beneficial to the species.

(2) Critical habitat is not determinable when one or both of the following situations exist:

(i) Information sufficient to perform required analyses of the impacts of the designation is lacking, or

(ii) The biological needs of the species are not sufficiently well known to permit identification of an area as critical habitat.

(b) In determining what areas are critical habitat, the Secretary shall consider those physical and biological features that are essential to the conservation of a given species and that may require

special management considerations or protection. Such requirements include, but are not limited to the following:

(1) Space for individual and population growth, and for normal behavior;

(2) Food, water, air, light, minerals, or other nutritional or physiological requirements;

(3) Cover or shelter;

(4) Sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; and generally;

(5) Habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

When considering the designation of critical habitat, the Secretary shall focus on the principal biological or physical constituent elements within the defined area that are essential to the conservation of the species. Known primary constituent elements shall be listed with the critical habitat description. Primary constituent elements may include, but are not limited to, the following: roost sites, nesting grounds, spawning sites, feeding sites, seasonal wetland or dryland, water quality or quantity, host species or plant pollinator, geological formation, vegetation type, tide, and specific soil types.

(c) Each critical habitat will be defined by specific limits using reference points and lines as

found on standard topographic maps of the area. Each area will be referenced to the State(s), county(ies), or other local governmental units within which all or part of the critical habitat is located. Unless otherwise indicated within the critical habitat descriptions, the names of the State(s) and county(ies) are provided for information only and do not constitute the boundaries of the area. Ephemeral reference points (e.g., trees, sand bars) shall not be used in defining critical habitat.

(d) When several habitats, each satisfying the requirements for designation as critical habitat, are located in proximity to one another, an inclusive area may be designated as critical habitat.

Example: Several dozen or more small ponds, lakes, and springs are found in a small local area. The entire area could be designated critical habitat if it were concluded that the upland areas were essential to the conservation of an aquatic species located in the ponds and lakes.

(e) The Secretary shall designate as critical habitat areas outside the geographical area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species.

(f) Critical habitat may be designated for those species listed as threatened or endangered but for which no critical habitat has been previously designated.

(g) Existing critical habitat may be revised according to procedures in this section as new data become available to the Secretary.

(h) Critical habitat shall not be designated within foreign countries or in other areas outside of United States jurisdiction.

---

50 C.F.R. § 424.19 Final rules – impact analysis of critical habitat.

The Secretary shall identify any significant activities that would either affect an area considered for designation as critical habitat or be likely to be affected by the designation, and shall, after proposing designation of such an area, consider the probable economic and other impacts of the designation upon proposed or ongoing activities. The Secretary may exclude any portion of such an area from the critical habitat if the benefits of such exclusion outweigh the benefits of specifying the area as part of the critical habitat. The Secretary shall not exclude any such area if, based on the best scientific and commercial data available, he determines that the failure to designate that area as critical habitat will result in the extinction of the species concerned.

ENDANGERED SPECIES ACT
P.L. 95-632

ENDANGERED SPECIES ACT AMENDMENTS OF 1978
P.L. 95-632, see page 92 Stat. 3751

Senate Report (Environment and Public Works Committee) No. 95-874, May 15, 1978 [To accompany S. 2899]

House Report (Merchant Marine and Fisheries Committee) No. 95-1625, Sept. 25, 1978 [To accompany H.R. 14104]

House Conference Report No. 95-1804, Oct. 15, 1978 [To accompany S. 2899]

Cong. Record Vol. 124 (1978)

DATES OF CONSIDERATION AND PASSAGE

Senate July 19, October 15, 1978

House October 14, 15, 1978

The Senate bill was passed in lieu of the House bill after amending its language to contain much of the text of the House bill. The House Report (this page) and the House Conference Report (p. 9484) are set out.

HOUSE REPORT NO. 95-1625

The Committee on Merchant Marine and Fisheries, to whom was referred the bill (H.R. 14104) to authorize appropriations to carry out the Endangered Species Act of 1973 through fiscal year 1981, and for other purposes, having considered the same, report

favorably thereon with amendments and recommend that the bill as amended do pass.

* * *

II. SECTION 7 AND CRITICAL HABITAT

Section 7 of the Endangered Species Act requires Federal agencies to insure that any action authorized, funded or carried out by them does not jeopardize the continued existence of listed species or destroy or modify the critical habitat of any endangered or threatened species. This one small section has developed into one of the most significant portions of the entire statute.

The mandate of section 7 applies once a species is listed or once "critical habitat" is designated for any listed species. The term "critical habitat" was not defined in the 1973 act, but regulations promulgated pursuant to the act have defined it to include "[a]ir, land or water areas . . . the loss of which would appreciably decrease the likelihood of the survival and recovery of a listed species or a distinct segment of its population. . . . "

The designation of critical habitat for listed species occurs in much the same manner as the initial listing of the species as endangered or threatened. Although the Departments did not originally designate critical habitat concurrently with the listing they are not attempting to do so. As of August 1978, critical habitats had been designated for 32 separate species. The species involved and the area of

the habitat are described in tables 2 and 3. An additional 56 critical habitats have been formally proposed for designation.

* * *

As the Act is currently written, critical habitat is determined solely on the basis of biological factors. The Secretary has no discretion to alter a critical habitat designation on the basis of the effect that such designation may have on the area. In many cases, the designation of critical habitat may have little or no impact on activities within the area of the habitat. Whether a specific action may violate section 7 depends on a biological analysis of the impact of the activity on the listed species or its habitat.

A. Tellico Dam and the snail darter – judicial interpretations of section 7

As we have seen in the celebrated snail darter case, section 7 can potentially have an enormous impact on Federal activities. In June of this year, the U.S. Supreme Court affirmed the lower court decision in the Tellico Dam case holding that the Tennessee Valley Authority facility could not be completed as planned because it would jeopardize the existence and destroy the critical habitat of the snail darter, a member of the perch family (*Tennessee Valley Authority v. Hill et al.*, No. 76-1701). In reaching this conclusion the Court indicated that the legislative history of the act revealed that Congress intended to halt and reverse the trend toward species extinction

– whatever the cost. The Court indicated that the pointed omission of any type of qualifying language in the statute revealed congressional intent to give the continued existence of endangered species priority over the primary missions of Federal agencies. The Supreme Court also dismissed the arguments that section 7 should not apply to any Federal action which is at an advanced stage of construction at the time the species is listed. The Court argued that the plain meaning of the language of section 7, read against the stated policies of the act and its legislative history, indicated that Congress did not intend agencies to be able to escape the mandate of section 7 simply on the basis of the stage of completion of the affected project or activity.

* * *

C. Amendments to the listing process

H.R. 14104 includes several amendments to the endangered species listing process. These amendments were added to the legislation in order to correct a number of deficiencies that were highlighted in the course of the oversight hearings. The committee discovered that, all too often, the listing of a species or the designation of critical habitat occurs in a regulatory vacuum. There has been little or no effort made to publicize the regulatory proposal in the affected area or give the people most directly impacted by the proposed regulation an opportunity to effectively comment on it. Under the existing Act an individual would have to spot the regulatory proposal

in the Federal Register in order to be aware of any potential listing or designation of habitat in his area.

The committee believes that the listing of a species or the designation of critical habitat is important enough to require the administering agencies to expand their notice procedures. H.R. 14104 would alleviate this problem by requiring actual notice of regulatory proposals to general units of government. In addition, the bill requires that any proposed designation of critical habitat be published in a local newspaper in the affected area. Finally, the bill would require informal public meetings on proposed critical habitat designations in the area, of the habitat and more formalized hearings in the State. Added together, these provisions will insure that the Department of the Interior is not listing species and designating critical habitat without consulting the views of the people of the affected area. In addition, these provisions will serve to alert the Fish and Wildlife Service to possible conflicts between listed spcies [sic] and human activities. The committee believes that it is in everybody's interest for conflicts between the presence of endangered species and development activities to be discovered, and resolved at the earliest possible opportunity.

D. Evaluation of economic impact of the designation of critical habitat for invertebrates

The ultimate goal of the Endangered Species Act is the conservation of the ecosystem on which all

species, whether endangered or not, depend for survival. For this reason the Endangered Species Act protects all endangered and threatened members of the animal kingdom, not merely the so-called higher forms of life. Nevertheless, the committee recognizes that the large number of species and subspecies within the 21 nonvertebrate phyla could ultimately present serious conflicts with many Federal activities. The committee adopted a provision, which while continuing full protection for all listed species, does give the Secretary the discretion to alter a critical habitat designation for an invertebrate species if he determines that the economic benefits of excluding a portion of the critical habitat outweigh the benefits of designating the area as part of the critical habitat.

This provision is not intended to downgrade the status of invertebrate species. Rather, it is intended to avoid conflicts between invertebrate species and Federal activities at an early stage, without having to resort to the full exemption procedure.

* * *

Section 4(b) of the act is amended by the addition of a new paragraph which specifies the way in which the critical habitat of invertebrate animal species is to be determined by the Secretary. In the new paragraph, the Secretary is directed to consider the economic and other relevant impacts of the inclusion of areas within a proposed critical habitat. The Secretary may exclude any area from a proposed critical habitat if he determines that the benefits of such an

exclusion outweight the benefits of specifying the area as part of the critical habitat.

Up until this time, the determination of critical habitat has been a purely biological question. With the addition of this new paragraph, the determination of critical habitat for invertebrate takes on significant added dimensions. Economics and any other relevant impact shall be considered by the Secretary in setting the limits of critical habitat for such a species. The Secretary is not required to give economics or any other "relevant impact" predominent consideration in his specification of critical habitat for invertebrates. The consideration and weight given to any particular impact is completely within the Secretary's discretion.

In directly addressing the question of the specification of critical habitat for invertebrates, the committee was motivated by its knowledge of the large number of species and subspecies of invertebrates, their usually high rate of reproduction, and their relatively small critical habitat requirements. The result of the committee's proposed amendment would be increased flexibility on the part of the Secretary in determining critical habitat for invertebrates. Factors of recognized or potential importance to human activities in an area will be considered by the Secretary in deciding whether or not all or part of that area should be included in the critical habitat of an invertebrate species. The committee expects that in some situations, the resultant critical habitat will be different from that which would have been established

using solely biological criteria. In some situations, no critical habitat would be specified. In such situations, the act would still be in force to prevent any taking or other prohibited act described in 16 U.S.C. 1538. In addition, agencies would still be prohibited from taking an action which would jeopardize the existence of the invertebrate species.

* * *

Section 2 of H.R. 14104 also amends section 4(c)(1) of the act which presently requires the Secretary to publish a list of endangered or threatened species which also specifies the portion of its range in which the species is endangered or threatened.

The committee bill would amend section 4(c)(1) to require the Secretary to include critical habitat designations on the Endangered and Threatened Species List. The term "range" is used in the general sense, and refers to the historical range of the species. The committee believes, nonetheless, that the Secretary should be exceedingly circumspect in the designation of critical habitat outside of the presently occupied area of the species.

H.R. 14104 amends section 4(f)(2)(A) of the act to expand present notice requirements and to require public meetings or hearings in connection with the listing of a species and the specification of its critical habitat.

Under the committee bill, notice of a proposed regulation (including a complete text of the regulation) would have to be published in the Federal Register 60 days before its effective date. Where critical habitat is specified, such notice must also be published in a newspaper of general circulation within or adjacent to such habitat. Actual notice of the regulation and any environmental assessment or environmental impact statement prepared on it is required to be given to all general local governments within or adjacent to the proposed critical habitat at least 60 days prior to its effective date. This provision does not require actual notice to special districts such as an irrigation or school district. The committee expects that the Secretary would utilize OMB Circular A-95 or some similar device for assuring effective notice to local governments.

Where critical habitat is specified in the proposed regulation, the Secretary must promptly hold a public meeting on the proposed regulation. The meeting must be held in the area in each State where such habitat would be found. The committee intends that the meetings held pursuant to this paragraph be of an informal variety that would permit a colloquy between representatives of the Department and local citizens. If a timely request is filed with the Secretary, a public hearing must be held in the State whose citizen filed the request. It is the intent of the committee that such hearings be held in accordance with appropriate sections of the Administrative Procedures Act and near or within the proposed critical habitat.

The committee does not intend that either the meetings or hearings be full adversarial proceedings with all of its inherent expenses to the parties and delays in arriving at a final regulation.

* * *

Section 5 of H.R. 14104 defines a number of terms used in the Endangered Species Act.

The term "critical habitat" is defined for the first time. The definition is modeled after that found in present Department of the Interior regulations. Under the present regulations, critical habitat includes air, land or water areas – the loss of which would appreciably decrease the likelihood of conserving a listed species. Under the present regulations, the Secretary could designate as critical habitat all areas, the loss of which would cause any decrease in the likelihood of conserving the species so long as that decrease would be capable of being perceived or measured.

In the committee's view, the existing regulatory definition could conceivably lead to the designation of virtually all of the habitat of a listed species as its critical habitat.

Under the definition of critical habitat included in H.R. 14104, air, land or water areas would be designated critical habitat only if their loss would significantly decrease the likelihood of conserving the species in question. The committee believes that this

definition narrows the scope of the term as it is defined in the existing regulations.

Section 5(2) of H.R. 14104 redefines the term "species" as it is used in the act. The existing definition of "species" in the act includes subspecies of animals and plants, taxonomic categories below subspecies in the case of animals, as well as distinct populations of animal "species." The definition included within the committee bill would exclude taxonomic categories below subspecies from the definition as well as distinct populations of invertebrates.

* * *

Calendar No. 804

95TH CONGRESS } SENATE { REPORT
2d Session } { No. 95-874

ENDANGERED SPECIES ACT AMENDMENTS OF 1978

MAY 15 (legislative day, APRIL 24), 1978. –
Ordered to be printed

Mr. CULVER, from the Committee on Environment and Public Works, submitted the following

REPORT

[To accompany S. 2899]

The Committee on Environment and Public Works, to which was referred the bill (S. 2899) to amend the Endangered Species Act of 1973 to establish an Endangered Species Interagency Committee to review certain actions to determine whether exemptions from certain requirements of that Act should be granted for such actions having considered the same, reports favorably thereon with amendments and recommends that the bill as amended do pass.

* * *

CRITICAL HABITAT DESIGNATION AND PROTECTION

It has come to the committee's attention that under present regulations the Fish and Wildlife

Service is now using the same criteria for designating and protecting areas to extend the range of an endangered species as are being used in designation and protection of those areas which are truly critical to the continued existence of a species. The committee feels that the rationale for this policy ought to be reexamined by the Fish and Wildlife Service. There seems to be little or no reason to give exactly the same status to lands needed for population expansion as is given to those lands which are critical to a species continued survival.

The committee is particularly concerned about the implications of this policy when extremely large land areas are involved in a critical habitat designation. For example, as much as 10 million acres of Forest Service land is involved in the critical habitat being proposed for the grizzly bear in three Western States. Much of the land involved in this proposed designation is not habitat that is necessary for the continued survival of the bear. It instead is being designated so that the present population within the true critical habitat can expand. The goal of expanding existing populations of endangered species in order that they might be delisted is understandable. This process does, however, substantially increase the amount of area involved in critical habitat designation and therefore increases proportionately the area that is subject to the regulations and prohibitions which apply to critical habitats.

In many cases the Fish and Wildlife Service has been unable to explain fully or predict what the

impacts of a critical habitat designation are going to be on activities which occur within a designated critical habitat. This is the case with the grizzly bear critical habitat. Certain adjustments must be made in planned activities, especially on habitat necessary for the continued survival of a species but identical adjustments may not be necessary on expansion lands.

The committee directs that the Fish and Wildlife Service examine this ambiguity in its regulatory process for critical habitat designations. Hopefully this review will be accomplished and a report delivered to this committee before a final decision is made on the grizzly bear designation.

* * *

97th Congress
2d Session

COMMITTEE PRINT

A LEGISLATIVE HISTORY OF THE ENDANGERED SPECIES ACT OF 1973, AS AMENDED IN 1976, 1977, 1978, 1979, AND 1980

TOGETHER WITH

A SECTION-BY-SECTION INDEX

PREPARED BY THE

CONGRESSIONAL RESEARCH SERVICE

OF THE

LIBRARY OF CONGRESS

FOR THE

COMMITTEE ON ENVIRONMENT
AND PUBLIC WORKS
U.S. SENATE

FEBRUARY 1982

SERIAL NO. 97-6

Printed for the use of the Committee on Environment and Public Works

---

U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON : 1982

* * *

[From the Congressional Record, Oct 14, 1978]

HOUSE CONSIDERATION AND PASSAGE OF H.R. 14104, WITH AMENDMENTS

ENDANGERS SPECIES ACT AMENDMENTS OF 1978

Mr. BOWEN. Mr. Speaker, I move that the House resolve itself into the Committee of the Whole House on the State of the Union for the consideration of the bill (H.R. 14104) to authorize appropriations to carry out the Endangered Species Act of 1978 through fiscal year 1981, and for other purposes.

The SPEAKER pro tempore. The question is on the motion offered by the gentleman from Mississippi (Mr. Bowen).

The motion was agreed to.

Accordingly the House resolved itself into the Committee of the Whole House on the State of the Union for the consideration of the bill H.R. 14104, with Mr. Sisk in the chair.

* * *

Mr. BUCHANAN. * * * Mr. Chairman, I am very pleased that the House now has an opportunity to address problems with the Endangered Species Act of 1973. It is a fact that these problems can rapidly be brought to bear on any unfortunate district in the country.

Last November, the U.S. Fish and Wildlife Service proposed two small minnowlike fish, the Cahaba

Shiner and the Goldline Darter, as endangered species and designated a portion of the district which I have the honor to represent as critical habitat.

From the beginning, legitimate questions were raised by many persons about the accuracy and objectivity of this proposal. Although the 1973 act requires that any such proposal be based on the best scientific data available, the Service was unable to provide any substantive evidence that the species in question were, in fact, endangered. Specific questions from this Member about the scientific validity of this proposal were either ignored or responded to on the basis of the personal observations of the author of the proposal – a Service biologist who has a long history of environmental activism in my State.

The combined efforts of the entire Alabama congressional delegation were required to obtain a public hearing on the proposal. Finally, after private interests conducted a very expensive biological study which contradicted the assumptions and conclusions of the proposal, the Service, at my insistence, agreed to conduct an analysis of the population dynamics and habitat requirements of these fish. This study is still in progress, but I very much fear that upon its completion, the Service will move to finalize the listing of these species, and that as a consequence more than a half billion dollars' worth of orderly, even model private development will be stopped dead in its tracks in the Birmingham area.

The bill before us today, H.R. 14104, is an attempt to address such problems. For that, I commend subcommittee chairman Bob Leggett; ranking minority member, Ed Forsythe; our colleague, David Bowen; and the other Members who worked so hard to achieve this compromise bill. Many of the provisions of H.R. 14104 are thoughtful, well-reasoned changes which reflect the concerns which I and other Members have conveyed to the committee.

I will offer three amendments today. None of these amendments threatens the basic thrust or the integrity of the 1973 act, nor are they attempts to cut the bill before us. In many ways, they are technical, perfecting amendments.

As it now stands, the committee bill provides that the Secretary of the Interior is required to consider the economic impact of designating critical habitat for invertebrate animal species – beetles and other types of inserts, mollusks, jellyfish, and the like. The Secretary is not required, however, to consider the economic impact of designating critical habitat for fish, mammals, reptiles, amphibians, birds or plants.

I believe that the Congress should state specifically that the Secretary of the Interior should at least consider the economic impact of the designation of any area as critical habitat. I believe the persons living in such areas would support this idea. Therefore, at the appropriate time, I will offer an amendment to strike the words "invertebrate animal."

* * *

Mr. BOWEN. Mr. Chairman, if the gentleman realizes there is no way we can by statute define what the critical habitat will be. The present law provides no definition of what critical habitat is, and this law makes some step in that direction. It points out that the critical habitat for endangered species must include the range the loss of which would significantly decrease the likelihood of preserving such species. So we have given some fairly rigid guidelines.

I am in complete agreement with the gentleman, and I believe the majority of the House is in agreement on that, that the Office of Endangered Species has gone too far in just designating territory as far as the eyes can see and the mind can conceive. What we want that office to do is make a very careful analysis of what is actually needed for survival of this species.

Mr. JOHNSON of Colorado. I agree with the gentleman. The bill is an improvement over the present situation, but I am concerned about the discretion we are giving these individuals who manage this office and that such discretion is going to be exercised so as to result in the kind of Grayrocks decision which we cannot live with.

As was pointed out to the House, every project in northern Colorado, whether it is for storage of water, or electrical generation for communities, can be blocked under decisions similar to that of the Grayrocks decision.

Mr. DUNCAN of Oregon. The gentleman has put his finger on a very critical part of this bill, and I will

offer an amendment at the appropriate time to define critical habitat to be that area essential to the preservation and conservation of the species, and I think that if we are concerned with critical habitat, that word "critical" implies essential to its survival.

* * *

Mr. MURPHY of New York. A second major problem associated with the act as currently written involves the notable lack of public input into the listing and designation process. We found in the course of our hearings that, all too often, the listing of a species or the designation of critical habitat occurs in a regulatory vacuum. There has been little or no effect made to publicize the regulatory proposal in the affected area or give the people most directly impacted by the proposed regulation an opportunity to effectively comment on it. The designation of critical habitat amounts to nothing less than a form of restricted zoning from Washington, D.C. Once an area has been designated critical habitat many activities, which may have been conducted in the area, could be precluded by the terms of the Endangered Species Act.

This bill cures this defect by requiring actual notice of regulatory proposals to all general local governments. In addition, the bill requires that proposed designations of critical habitat be published in a local newspaper in the affected area. Finally, the bill would require informal public meetings on proposed critical habitat designations in the area of the habitat and hearings in the State.

All of these provisions put together will help to insure that the Department of the Interior is not blindly listing species and designating critical habitat without consulting the views of the people of the affected area. In addition, these provisions will serve to alert the Fish and Wildlife Service about possible conflicts between the listed species and human activities. Certainly it is in everybody's interest for conflicts between species and development activities to be discovered and resolved at the earliest possible opportunity.

* * *

Mr. DUNCAN of Oregon. Mr. Chairman, we have spent a lot of time here this afternoon with specific exemptions from what is deemed by at least a majority of the members of this committee to be unreasonable restrictions imposed upon the activities of man by the rigid requirements of the Endangered Species Act.

The first amendment which I am offering goes to the heart – both amendments do – of the problems which have been raised by this bill.

* * *

In the original bill there was no definition of critical habitat at all. In its amendment the committee recognizes the problem and does define critical habitat. There being no definition in the original bill, the Department of the Interior issued a regulation which defined critical habitat for an endangered species as " . . . any land, airs or water area . . . and

constituent elements thereof, the loss of which would appreciably decrease the likelihood of conserving such species"; the committee in an effort to correct the problem changed only the word "appreciably" to the word "significantly". I think they recognized the problem and tried to address it but failed miserably in doing so.

This definition which I offer as a substitute defines critical habitat as the specific areas within the geographical area occupied by the species on which are found those physical or biological features which are essential to the conservation of the species and which require special management. In addition to that I include as critical habitat specific areas periodically inhabited by the species which are outside the geographic area occupied by the species (excluding marginal habitat) upon a determination by the Secretary that such areas are essential for the conservation of the species.

This is a definition of critical habitat. I think that in order to be consistent with the purposes of this bill to preserve critical habitat that there ought to be a showing that it is essential to the conservation of the species and not simply one that would appreciably or significantly decrease the likelihood of conserving it.

I think it goes to the heart of the problem which every Member has felt in his district. It is entirely consistent with good biological practices and furthermore it maintains intact the purpose of this bill,

which is to prevent the extinction of species who require this critical habitat.

* * *

The question is on the amendment offered by the gentleman from Oregon (Mr. Duncan).

The amendment was agreed to.

* * *

AMENDMENT OFFERED BY MR. BUCHANAN

Mr. BUCHANAN. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. Buchanan: Page 2, line 15, strike out "invertebrate animal".

Mr. BUCHANAN. Mr. Chairman, when the proposal that two small fish, mutations of minnowlike fish, in my congressional district be listed was made, we said to the Department of the Interior, this action could result in stopping a half billion dollars' worth of orderly, model development, the loss of thousands of jobs and millions of dollars, and the bankruptcies of businesses. They said, we cannot consider economic impact in this decision.

Our committee has put into this bill a provision that the Secretary is ordered to consider economic impact in the case of invertebrates. However, curiously vertebrates, which is where the problem has been the minnow-like fish, the Houston toad, the furry

bush louse-wort, or plants are not included. I would simply eliminate this double standard and say that always the Secretary must consider economic impact. We do not limit his ability to make a decision; we only say, you shall look at the economic impact, not in just the case of invertebrates, which the committee included; but also those species that have cause[d] much of the trouble: the little fish, the toads, the plants.

I urge adoption of my amendment.

Mr. BROOKS. Mr. Chairman, will the gentleman yield?

Mr. BUCHANAN. I yield to the gentleman from Texas.

Mr. BROOKS. I thank the gentleman for yielding.

I would just, like to say briefly that this amendment would make economic impact one of the factors on the projects in the Houston area where there are reputed to be those monstrous Houston toads that they have not located, but only come out at night, and they hunt for them between 4 and 6 o'clock in the morning when they can hear them, but they never have caught them.

It is a foolish sort of thing to think we would stop the commitment of millions of dollars and thousands of jobs and hundreds of homes because of this.

The CHAIRMAN. The time of the gentleman has expired.

The question is on the amendment offered by the gentleman from Alabama (Mr. Buchanan).

The amendment was agreed to.

* * *

ENDANGERED SPECIES ACT AMENDMENTS OF 1982

P.L. 97-304, see page 96 Stat. 1411

House Report (Merchant Marine and Fisheries Committee) No. 97-567, May 17, 1982
[To accompany H.R. 6133]

Senate Report (Environment and Public Works Committee) No. 97-418, May 26, 1982
[To accompany S. 2309]

House Conference Report No. 97-835, Sept. 17, 1982
[To accompany H.R. 6133]

Cong. Record Vol. 128 (1982)

DATES OF CONSIDERATION AND PASSAGE

House June 7, September 30, 1982

Senate June 9, September 20, 1982

The House bill was passed in lieu of the Senate bill. The House Report (this page) and the House Conference Report (page 2860) are set out.

HOUSE REPORT NO. 97-567

The Committee on Merchant Marine and Fisheries, to whom was referred the bill (H.R. 6133) to authorize appropriations to carry out the Endangered Species Act of 1973, as amended, through fiscal year 1984, having considered the same, report favorably

thereon with amendments and recommend that the bill as amended do pass.

* * *

Background and Need

The Endangered Species Act was enacted in 1973 as a response to mounting concern over the extinction of fish, wildlife, and plants in the United States. The Endangered Species Preservation Act of 1966 and the Endangered Species Conservation Act of 1969 preceded the 1973 Act to address the same problem, but it was the last statute which constructed a comprehensive means to balance economic growth and development with adequate conservation measures. This multi-faceted measure is designed to restore species that are so depleted in numbers that they are in danger of, or threatened with, extinction. Subsequent to its passage, the Act was amended in 1976, 1978 and 1979 to increase the flexibility in balancing species protection and conservation with development projects. The Act is administered by the Secretaries of the Interior and Commerce through the U.S. Fish and Wildlife Service and the National Marine Fisheries Service respectively.

The protective measures to counter species extinction take effect when a species is listed. The listing process under Section 4 is the keystone of the Endangered Species Act. Any species or subspecies of fish, wildlife or plants may be listed and separate populations of vertebrate species may be listed. The

Secretary is directed, to the maximum extend prudent, to designate habitat critical to the survival of the species at the time of listing. The public may play an active role in this process. Petitions may be submitted to the Secretary for listing proposals, and public consultation with affected States prior to listing is required. The final decision on whether or not to list the species as endangered or threatened rests with the Secretary. He must use the best available scientific and commercial data regarding the status of the species. Designations of the critical habitat of the species listed may be altered by the Secretary to reflect economic considerations unless the failure to designate an area would result in the extinction of the species. Section 4 also directs the Secretary to develop and implement recovery plans which are designed to return endangered and threatened species to, healthy population levels.

Listing a species, subspecies, or population implies several responsibilities created by other sections of the Act, the most wide-ranging, effective and controversial of which are encompassed in Section 7. That section mandates all federal agencies, in consultation with the Secretary, to ensure that any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of an endangered species or result in the destruction or adverse modification of its critical habitat.

The assessment of the potential threat of the agency action is performed by the Secretary in a

biological opinion. This process begins when the agency is advised by the Fish and Wildlife Service or the National Marine Fisheries Service that an endangered species resides in the area of the intended project. When a species is in the project area, the agency responsible for the action or the applicant for a federal permit or license performs a biological assessment to determine if the species is present and submits it to the Secretary. Based on this and other information, the Secretary issues a biological opinion as to whether or not a project would be likely to jeopardize a species or adversely modify its critical habitat. If the project would do so, the Secretary suggests reasonable and prudent alternatives to the project to avoid such jeopardy or adverse modification of habitat.

* * *

One of the principal problems noted was the decline in the pace of listing species which has occurred in recent years. * * * Specific short-comings in the listing process were identified during testimony before the Committee and it was clear that a clarified process and structure would improve the working of section 4 of the Act.

In evaluating the testimony, the Committee arrived at the conclusion that critical habitat adds some confusion to the listing phase. Although the Secretary is to determine whether a species should be listed based on biological information on the status of that population, the critical habitat designation,

which is to accompany the species listing to the maximum extent prudent, also takes into account the economic impacts of listing such habitat as critical. Whether a species has declined sufficiently to justify listing is a biological, not an economic, question. For this reason, the Committee eliminated all economic considerations from the species listing process. Desirous to restrict the Secretary's decision on species listing to biology alone, the Committee nonetheless recognized that the critical habitat designation, with its attendant economic analysis, offers some counterpoint to the listing of species without due consideration for the effects on land use and other development interests. For this reason, the Committee elected to leave critical habitat as an integral part of the listing process but to prevent its designation from influencing the decision on the listing of a species. This was accomplished by requiring the Secretary to reach a decision on the listing proposal by the end of one year and this decision must be based on biological information alone.

* * *

Section 4(a)(1) is further amended by changing the requirement that the Secretary, to the maximum extent prudent, must designate critical habitat at the time a species is listed. Section 4(a)(1) requires that he must do so only to the maximum extent prudent and determinable. By the inclusion of the word "determinable" the Committee recognizes that, because of the combination of biological studies and the economic analysis required under Section 4(b)(4) of the

Act and the attendant analysis imposed by Executive Order 12291 and by statutes such as the Regulatory Flexibility Act and the Paperwork Reduction Act, it may be difficult to determine the most appropriate critical habitat within the time frame contained in the legislation for the listing of species. The Committee feels strongly, however, that, where the biology relating to the status of the species is clear, it should not be denied the protection of the Act because of the inability of the Secretary to complete the work necessary to designate critical habitat. Therefore, the legislation establishes clear time frames, described below, for considering the biology of the species and directs that determinations regarding the listing of the species be completed within those time frames. The Committee expects the agencies to make the strongest attempt possible to determine critical habitat within the time period designated for listing, but stresses that the listing of species is not to be delayed in any instance past the time period allocated for such listing if the biological data is clear but the habitat designation process is not complete.

The Committee notes that the term "prudent" has been interpreted to refer to situations where the designation of critical habitat would inform those who would take a species illegally of the location of the species. This is particularly true of some species of butterflies and plants. The Committee approves of this interpretation. The Committee also notes, with approval, the existence of a Solicitor's opinion in the Department of the Interior stating that the critical

habitat provisions of the Act only apply to areas within the jurisdiction of the United States and that the designation of critical habitat in foreign countries or on the high seas would be inappropriate.

Section 4(b) of the Act is amended in several instances by Section 1(a)(2) of H.R. 6133. First, the legislation requires that the Secretary base his determinations regarding the listing or delisting of species "solely" on the basis of the best scientific and commercial data available to him. The addition of the word "solely" is intended to remove from the process of the listing or delisting of species any factor not related to the biological status of the species. The Committee strongly believes that economic considerations have no relevance to determinations regarding the status of species and intends that the economic analysis requirements of Executive Order 12291, and such statutes as the Regulatory Flexibility Act and the Paperwork Reduction Act not apply. The Committee notes, and specifically rejects, the characterization of this language by the Department of the Interior as maintaining the status quo and continuing to allow the Secretary to apply Executive Order 12291 and other statutes in evaluating alternatives to listing. The only alternatives involved in the listing of species are whether the species should be listed as endangered or threatened or not listed at all. Applying economic criteria to the analysis of these alternatives and to any phase of the species listing process is applying economics to the determinations made under Section 4 of the Act and is specifically rejected

by the inclusion of the word "solely" in this legislation.

Section 4(b) of the Act, as amended, provides that listings shall be based solely on the basis of the best "scientific and commercial data" available. The Committee did not change this information standard because of its interpretation of the word "commercial" to allow the use of trade data. Retention of the word "commercial" is not intended, in any way, to authorize the use of economic considerations in the process of listing a species.

The Committee notes, however, that the provisions in the Act relating to the designation of critical habitat remain unchanged by H.R. 6133 and the economic analysis provisions of Section 4(b)(4) and the provisions of Executive Order 12291 and the aforementioned statutes relating to the analysis of regulations would continue to apply to the designation of critical habitat.

* * *

Recovery Plan for the Mexican Spotted Owl (*Strix occidentalis lucida*)

Plan de Recuperacion
del Tecolote Moteado Mexicano
(*Strix occidentalis lucida*)

Nancy M. Kaufman, Regional Director,
U.S. Department of the Interior,
Fish and Wildlife Service,
Southwestern Region

Primary Authors:

William M. Block; Fernando Clemente; Jack F. Cully; James L. Dick, Jr.; Alan B. Franklin; Joseph L. Ganey; Frank P. Howe; W.H. Moir; Steven L. Spangle; Sarah E. Rinkevich; Dean L. Urban; Robert Vahle; James P. Ward, Jr.; and Gary C. White

Other Contributors:

Kevin J. Cook (Technical Editor): Brian Geils (Disturbance Analyses); Kate W. Grandison (Meeting Facilitator); Tim Keitt (Landscape Analyses); Juan F. Martinez-Montoya (Mexican Recovery Units); Art Needleman and Jill Simmons (Layout and Design); Joyce V. Patterson (Illustrator); Tom Spalding (State of Arizona); Rich Teck (Forest Modeling); Steven Thompson (Southwestern Tribal Liaison); Brenda E. Witsell (Administrative Assistant).

1995

Approved: /s/ Nancy M Kaufman Date: Oct 16, 1995
Regional Director,
U.S. Fish and Wildlife
Service

DISCLAIMER:

This Recovery Plan is not intended to provide details on all aspects of Mexican spotted owl management. The Recovery Plan outlines steps necessary to bring about recovery of the species. The Recovery Plan is not a "decision document" as defined by the National Environmental Policy Act (NEPA). It does not allocate resources on public lands. The implementation of the recovery plan is the responsibility of Federal and State management agencies in areas where the species occurs. Implementation is done through incorporation of appropriate portions of the Recovery Plan in agency decision documents such as forest plans, park management plans, and State game management plans. Such documents are then subject to the NEPA process for public review and selection of alternatives.

* * *

DESCRIPTION

The spotted owl is mottled in appearance with irregular white and brown spots on its abdomen, back, and head. The spots of the Mexican spotted owl are larger and more numerous than in the other two subspecies, giving it a lighter appearance. *Strix occidentalis* translates as "owl of the west" and *lucida* means "light" or "bright." Unlike most owls, spotted owls have dark eyes. Several thin white bands mark an otherwise brown tail.

Adult male and female spotted owls are mostly monochromatic in plumage characteristics, but the sexes can be readily distinguished by voice (see below). Juveniles, subadults, and adults can be distinguished by plumage characteristics (Forsman 1981 Moen et al. 1991). Juvenile spotted owls (hatchling to approximately five months) have a downy appearance. Subadults (5 to 26 months) closely resemble adults, but have pointed retrices with a pure white terminal band (Forsman 1981, Moen et al. 1991). The retrices of adults (>27 months) have rounded tips, and the terminal band is mottled brown and white.

Although the spotted owl is often referred to as a medium-sized owl, it ranks among the largest owls in North America. Of the 19 species of owls that occur in North America, only 4 are larger than the spotted owl (Johnsgard 1988). Like many other owls, spotted owls exhibit reversed sexual dimorphism (i.e., females are larger than males). Adult male Mexican spotted owls ($n = 37$) average 519 ± 32.6 (SD) g (18.5 oz), and adult females ($n = 31$) average 579 ±31.2 g (20.7 oz) (Kristan et al., in prep.). There appears to be clinal variation among the three subspecies in a number of morphological characteristics measured, with size decreasing from north to south (Kristan et al., in prep.).

DISTRIBUTION AND ABUNDANCE

The Recovery Team gathered and examined information on the distribution and abundance of Mexican spotted owls through 1993. Data from surveys conducted after 1993 were not available for our analyses.

We used the information collected to (1) document historical and current range of this subspecies, (2) help formulate Recovery Unit boundaries, and (3) provide a template for analyses at the landscape scale. Descriptions of Recovery Units are provided in the following chapter (II.B).

The Mexican spotted owl currently occupies a broad geographic area, but does not occur uniformly throughout its range (Figure II.A.2). Instead, the owl occurs in disjunct localities that correspond to isolated mountain systems and canyons. In the United States, 91% of the owls known to exist between 1990 and 1993 occur on lands administered by the FS (Table 11.A.1). Other lands currently occupied by Mexican spotted owls in the United States include, NPS (4%), BLM (2%), Tribal (2%), and DOD (1%). We know that more owls occur on Tribal lands than indicated here, but specific information on numbers of owls known on Tribal lands was not made available to the Team. Owl distribution according to land ownership is unavailable for Mexico. Eighty-nine percent of the owls known to exist between 1990 and 1993 in Mexico were in the States of Sonora and Chihuahua (Table II.A.1, Figure II.A.3). However, most survey

efforts in Mexico were restricted to these states, and these numbers do not necessarily reflect actual trends in distribution.

The current owl distribution mimics its historical extent, with a few exceptions. The owl has not been reported recently along major riparian corridors in Arizona and New Mexico, nor in historically documented areas of southern Mexico. Riparian communities and previously occupied localities in the southwestern United States and southern Mexico have undergone significant habitat alteration since the historical sightings (USDI 1993). However, the amount of effort devoted to surveying these areas is unknown and future surveys may document spotted owls there. Surveys conducted to relocate spotted owls in northern Colorado near Fort Collins and Boulder, where records exist from the early 1970s and 1980s, have been unsuccessful. Surveys conducted in the Book Cliffs of east-central Utah, where owls were recorded in 1958, have also been unsuccessful. Although historical (pre-1990) data provide some information about * * * about [sic] past distribution of spotted owls, we stress that it is not sufficient to allow us to estimate changes in the number or distribution of owls from historical to present time.

Most current observations of Mexican spotted owls are from the Upper Gila Mountains RU (see II.B). This unit can be considered a critical nucleus

for the subspecies because of its central location within the owl's range and its seemingly high number of owls. Other areas likely to be important population centers include the sky islands of southeastern Arizona and the Sacramento Mountains of central New Mexico (Basin and Range RUs; see II.B). Although information on owl numbers permits a view of the current distribution, it is not complete enough to provide a reliable estimate of total population size.

Mexican spotted owls occur at higher densities in mixed-conifer forests than in pine-oak, pine, and pinyon-juniper forest types (Skaggs and Raitt 1988, White et al. 1995). A combined estimate of Mexican spotted owl density on two study areas in the Upper Gila Mountains RU is similar to estimates reported for other spotted owl subspecies.

In summary, the Mexican spotted owl is distributed discontinuously throughout its range, with its distribution largely restricted to montane forests and canyons. Although future efforts will undoubtedly discover additional owls, their documented spatial distribution in the United States is not likely to change greatly. The converse is true for Mexico, where planned surveys have begun only recently.

HABITAT ASSOCIATIONS

Mexican spotted owls nest, roost, forage, and disperse in a diverse array of biotic communities. Mixed-conifer forests are commonly used throughout most of the range (Johnson and Johnson 1985,

Skaggs and Raitt 1988, Ganey et al. 1988, Ganey and Balda 1989a, Rinkevich 1991, Willey 1993, Fletcher and Hollis 1994, Seamans and Gutiérrez, in press). In general, these forests are dominated by Douglas-fir and/or white fir, with codominant species including southwestern white pine, limber pine, and ponderosa pine (Brown et al. 1980), The understory often contains the above coniferous species as well as broadleaved species such as Gambel oak, maples, boxelder, and New Mexico locust. In southern Arizona and Mexico, Madrean pine-oak forests are also used commonly (Ganey and Balda 1989a, Duncan and Taiz 1992, Ganey et al. 1992, Tarango et al. 1994). These forests are typically dominated by an overstory of Chihuahua and Apache pines in conjunction with species such as Douglas-fir, ponderosa pine, and Arizona cypress. Evergreen oaks are typically prominent in the understory (Brown et al. 1980).

Habitat-use patterns vary throughout the range and with respect to owl activity (see below). In the northern portion of the range, including southern Utah, southern Colorado, and far northern Arizona and New Mexico, owls occur primarily in steep-walled, rocky canyons (Kertell 1977, Reynolds 1990, Rinkevich 1991, Willey 1993). Along the Mogollon Rim in Arizona and New Mexico, habitat use is less restricted, and spotted owls occur in mixed-conifer forests, ponderosa pine-Gambel oak forests, rocky canyons, and associated riparian forests (Ganey and Balda 1989a, Ganey et al. 1992, Fletcher and Hollis 1994, Seamans and Gutiérrez, in press, Peter Stacey,

Univ. of Nevada, Reno, pers. comm.). South of the Mogollon Rim and into Mexico a still wider variety of habitat types are used, including mixed-conifer, Madrean pine-oak, and Arizona cypress forests, encinal oak woodlands, and associated riparian forests (Ganey and Balda 1989a, Duncan and Taiz 1992, Ganey et al. 1992, Tarango et al. 1994). Much of this regional variation in habitat use likely results from differences in regional patterns of habitat and prey availability.

Nesting and Roosting Habitat

Mexican spotted owls nest and roost primarily in closed-canopy forests or rocky canyons. In the northern portion of the range (southern Utah and Colorado), most nests are in caves or on cliff ledges in steep-walled canyons. Elsewhere, the majority of nests appear to be in trees (Fletcher and Hollis 1994).

Forests used for roosting and nesting often contain mature or old-growth stands with complex structure (Skaggs and Raitt 1988, Ganey and Balda 1989a, 1994; McDonald et al. 1991, Seamans and Gutiérrez, in press). These forests are typically uneven-aged, multistoried, and have high canopy closure. Nest trees are typically large in size (SWCA 1992, Fletcher and Hollis 1994, Seamans and Gutiérrez, in press), whereas owls roost in both large and small trees (Ganey 1988, Rinkevich 1991, Willey 1993, Zwank et al. 1994, Peter Stacey, Univ. of Nevada, Reno, pers. comm.). Tree species used for nesting vary

somewhat among areas and habitat types, but available evidence suggests that Douglas-fir is the most common species of nest tree (SWCA 1992, Fletcher and Hollis 1994, Seamans and Gutiérrez, in press). A wider variety of trees are used for roosting, but again Douglas-fir is the most commonly used species (Ganey 1988, Fletcher and Hollis 1994, Zwank et al. 1994, Peter Stacey, Univ. of Nevada, Reno, pers. comm.).

Several hypotheses have been proposed to explain why spotted owls nest in closed-canopy forests (reviewed by Carey 1985, Gutiérrez 1985). Barrows (1981) suggested that spotted owls are relatively intolerant of high temperatures and roost and nest in shady forests because they provide favorable in microclimatic conditions. Ganey et al. (1993) observed that Mexican spotted owls produced more metabolic heat than great horned owls, and were less able to dissipate that heat. This may lead these owls to seek out cool microsites during periods of high ambient temperature. Mexican spotted owls typically nest and roost in closed-canopy forests or deep shady canyons; both situations provide cool microsites (Kertell 1977, Ganey et al. 1988, Rinkevich 1991, Ganey and Balda 1989a, Willey 1993).

Foraging Habitat

Little is known about patterns of habitat use by foraging owls. The only available data describe habitat use by eight owls occupying five home ranges on

three study areas in northern Arizona (Ganey and Balda 1994). In general, owls foraged more than or as expected in unlogged forests, and less than or as expected in selectively logged forests. Expected values were based on relative occurrences of habitats. However, patterns of habitat use varied among study areas and individuals, and even between pair members in some cases, making generalizations difficult. Both high-use roosting and high-use foraging sites had more big logs, higher canopy closure, and greater densities and basal areas of both trees and snags than random sites. Owls clearly used a wider variety of forest conditions for foraging than they used for roosting (Ganey and Balda 1994). We caution, however, about extending these results too far given the limited number of owls sampled, and the variability observed among owls and sites.

* * *

B. GENERAL APPROACH

The Recovery Plan recommendations are a combination of (1) protection of both occupied habitats and unoccupied areas approaching characteristics of nesting habitat, and (2) implementation of ecosystem management within unoccupied but potential habitat. The goal is to protect conditions and structures used by spotted owls where they exist and to set other stands on a trajectory to grow into replacement nest habitat or to provide conditions for foraging and dispersal. By necessity this Plan is a hybrid approach because the status of the Mexican spotted owl as a

threatened species requires some level of protection until the subspecies is delisted. These constraints modify ways and opportunities to manage ecosystems within landscapes where owls occur or might occur in the future. We are applying ecosystem management in two slightly different ways. Within unoccupied mixed-conifer and pine-oak forest on <40% slope, we provide both general (coarse filter) and specific (fine filter) guidelines to provide a sustainable quantity of replacement nest habitat across the landscape. Within other unoccupied forest and woodland types (e.g., ponderosa pine, spruce-fir, aspen, and pinyon-juniper), general guidance is provided for managing the landscape to meet multiple ecosystem management objectives including spotted owl foraging and dispersal habitat.

Management priority should focus on actions to alleviate threats to Mexican spotted owls; thereafter, or in coordination with alleviating threats, other management priorities (e.g., creating replacement owl habitat) should be pursued. Two primary threats that managers should focus on are catastrophic wildfire and the widespread use of even-aged silviculture.

Heavy accumulations of ground and ladder fuels have rendered many Southwestern forests vulnerable to stand-replacing fires. Such fires represent real and immediate threats to the existence of spotted owl habitat. The management guidelines that follow are intended to provide land managers with flexibility to

reduce these fuel levels and abate fire risks. Fire management should be given the highest priority.

Even-aged silviculture within potential owl habitat is regarded as a threat because it tends to simplify stand structure and move stands away from containing structures used by owls. We recognize, however, that such regeneration cuts may provide useful tools in certain circumstance to manage for spotted owls and other ecosystem objectives. Any use of even-aged management should be done sparingly and only after careful deliberation to ensure that it represents the best approach to meet management objectives.

Under proposed delisting criteria the owl could be delisted within 10 years, rendering the protection measures in this Recovery Plan obsolete. At that time, we anticipate having sufficient knowledge to design a strategy for long-term conservation of the Mexican spotted owl. Many of the ecosystem management guidelines provided in this Plan will provide a foundation for development of the long-term strategy. In formulating our recommendations, we assume that population and habitat status will be monitored in conjunction with implementation of these management guidelines. This Recovery Plan is analogous to a three-legged stool (Figure III.B.1); therefore, the management guidelines are not meant to stand alone. Monitoring provides objective criteria to assess the efficacies of the management guidelines. Without both habitat and population monitoring, the status of the owl cannot he assessed and it should not be

delisted. We further assume that existing management constraints on vegetative manipulations (such as size of openings and maintenance of hiding and thermal cover for other species) will remain in place. This assumption is especially critical for vegetation types – ponderosa pine, pinyon-juniper, aspen, and spruce-fir – for which we provide no specific management recommendations.

ASSUMPTIONS AND GUIDING PRINCIPLES

The recommendations proposed here are based on several key assumptions about habitat requirements of the Mexican spotted owl, and a * * * number of guiding principles. These are enumerated below.

Assumptions

1. Spotted owl distribution is limited primarily by the availability of habitat types used for nesting and/or roosting.

2. Habitats used for nesting/roosting also provide adequate conditions for foraging and dispersal activities. Thus, providing nesting/roosting habitat partially meets other survival requirements as well. In turn, some stand structures not used for nesting/roosting may provide adequate conditions for other activities such as foraging and dispersal. These include some stands in younger seral stages than typical nesting/roosting habitat.

3. Nesting/roosting habitat in forest environments is typified by certain structural features, including large trees and late seral characteristics, which are common in, but not restricted to, old-growth forests.

4. Forested nesting/roosting habitat is. typically found in mixed-conifer, pine-oak, and riparian forests. Other habitat types are used primarily for foraging, dispersal, or wintering. Thus, the distribution of nesting/roosting habitat is naturally discontinuous. Further, the potential distribution of such habitat is quite limited in some areas.

5. The presence of shade-intolerant species in many spotted owl nest/roost stands suggests that these areas are dynamic and have developed over time, often from more open stands. Disturbance events leading to forest canopy gaps may be important in maintaining shade-intolerant species, particularly in mixed-conifer stands.

6. Existing stand structures used by Mexican spotted owls for nesting/roosting generally have not been a target of planned silvicultural treatments. Where such conditions exist in managed stands, they are more than likely an unplanned rather than purposeful result. The existence of Mexican spotted owl nesting/roosting habitat usually results from the lack of recent alteration of forest structures in certain landscapes.

Guiding Principles

1. Silvicultural applications must be evaluated over time by rigorous monitoring procedures to assess their effectiveness in managing or creating owl habitat.

2. Obtaining large trees is a function of both time and site productivity. Similarly, many late seral characteristics typical of owl habitat, such as broken-topped trees, snags, large downed logs and the sharing of growing space among multiple shade-tolerant and intolerant species, are attained primarily through time.

3. Although this Recovery Plan represents a short-term strategy, management actions recommended herein will have long-term consequences. Therefore, care should be taken to preserve future options while evaluating the effectiveness of proposed treatments.

GENERAL RECOMMENDATIONS

General management recommendations for use throughout the range of the Mexican spotted owl are given here. These general recommendations apply primarily to forested areas, and aspects of the recommendations are more applicable to some locations than others. Because the severity of potential threats varies among RUs, the general guidelines should be prioritized and applied accordingly. Specific management priorities are emphasized in sections on

individual RUs, as warranted by the differences among RUs.

Three levels of habitat management are given in this Recovery Plan: protected areas, restricted areas, and other forest and woodland types (Figure III.B.2). Protected areas receive the highest level of protection under this plan, other forest and woodland types the lowest. Guidelines proposed in this Recovery Plan take precedence over other agency management guidelines in protected areas. Guidelines for restricted areas are less specific and operate in conjunction with ecosystem management and existing management guidelines. We propose no owl-specific guidelines for lands not included in protected and restricted areas; these areas will continue to be managed under existing guidelines, assuming that the emphasis is towards ecosystem management.

One guideline that applies to all areas with any potential for owl use is to inventory for spotted owls before implementing any management action that will alter habitat structure. If results of past inventory efforts can demonstrate unequivocally that no spotted owls have been detected within a given area or habitat and that the probability of detecting a bird there is small, then future surveys may not be needed. Under such circumstances, concurrence must be granted by the Recovery Team through the appropriate RU working team.

Protected Areas

Protect all Mexican spotted owl sites known from 1989 through the life of the Recovery Plan (Protected Activity Centers), all areas in mixed-conifer and pine-oak types (defined in II.C) with slope >40% where timber harvest has not occurred in the past 20 years, and all legally and administratively reserved lands. Specific guidelines and the rationale for these guidelines are provided below.

Protected Activity Center (PAC)

Guidelines. – Eight specific guidelines pertain to the designation and implementation of PACs. These guidelines supersede steep slope guidelines; that is, steep slopes occurring within PACs should be managed under PAC guidelines.

1. Establish PACs at all Mexican spotted owl sites known from 1989 through the life of the Recovery Plan, including new sites located during surveys. PACs should also be established at any historical sites within the Colorado Plateau, Southern Rocky Mountains – Colorado, and * * * Southern Rocky Mountains – New Mexico RUs. Identify the activity center within each PAC. "Activity center" is defined as the nest site, a roost grove commonly used during the breeding season in absence of a verified nest site, or the best roosting/nesting habitat if both nesting and roosting information are lacking. Site identification should be based on the best judgement

of a biologist familiar with the area. Delineate an area no less than 243 ha (600 ac) around this activity center using boundaries of known habitat polygons and/or topographic boundaries, such as ridgelines, as appropriate (Figure III.B.3). The boundary should enclose the best possible owl habitat, configured into as compact a unit as possible, with the nest or activity center located near the center. This should include as much roost/nest habitat as is reasonable, supplemented by foraging habitat where appropriate. For example, in a canyon containing mixed-conifer on north-facing slopes and ponderosa pine on south-facing slopes, it may be more desirable to include some of the south-facing slopes as foraging habitat than to attempt to include 243 ha (600 ac) of north-slope habitat. In many canyon situations, oval PACs may make more sense than, for example, circular PACs; but oval PACs could still include opposing canyon slopes as described above. All PACs should be retained for the life of this Recovery Plan, even if spotted owls are not locates there in subsequent years. A potential exception to this rule is described in #8 below. Feedback on PAC delineation should be provided to managers through RU working groups (see Part IV). PAC boundaries may not overlap.

2. No harvest of trees >22.4 cm (9 in) dbh is allowed in PACs. Harvest of any trees is only permitted as it pertains to 5 below.

3. Fuelwood harvest within PACs should be managed in such a way as to minimize effects

on the owl, its prey, and their habitats. The most effective management to meet these objectives may be to prohibit such harvest. However, we recognize that it may be virtually impossible to enforce such a prohibition and restrict access to all PACs for fuelwood harvest. When fuelwood harvest in PACs is unavoidable, we advocate the use of various forms of management that can regulate access to PACs and to the types of fuels harvested. Potential forms of fuelwood management include road closures, prohibiting harvest of important tree species such as oaks, prohibiting harvest of key habitat components such as snags and large downed logs (>30 cm [12 inch] midpoint diameter), and encouraging the harvest of small diameter conifers in accord with 5c below. Prohibiting fuelwood harvest of key habitat components such as oaks, snags, and large logs should be applied both inside and outside of PACs to ensure that these special components remain on the landscape.

4. Road or trail building in PACs should generally be avoided but may be allowed on a case-specific basis if pressing management reasons can be demonstrated.

5. Implement a program consisting of appropriate treatments to abate fire risk. The intent of this program is to assess the combined effects of thinning and fire on spotted owls and their habitat. The program should be structured as follows:

a) Select up to 10% of the PACs within each RU that exhibit high fire risk conditions. Nest sites must be known within these PACs. Ideally, a paired sample of PACs should be selected to serve as control areas.

b) Within each selected PAC, designate 40 ha (100 acres) centered around the nest site. This nest area should include habitat that resembles the structural * * * and floristic characteristics of the nest site. These 40 ha (100 acres) will be deferred from the treatments described below.

c) Within the remaining 203 ha (500 acres), combinations of thinning trees <22.4 cm (9 inches) dbh, treatment of fuels, and prescribed fire can be used to reduce fire hazard and to improve habitat conditions for owl prey. Habitat components that should be retained or enhanced include large logs (>30 cm [12 inches] midpoint diameter), grasses and forbs, and shrubs. These habitat components are strong correlates of the presence of many key prey species of the owl. Emphasis of the spatial configuration of treatments should be to mimic natural mosaic patterns.

d) Treatments can occur only during the nonbreeding season (1 September-28

February) to minimize any potential deleterious effects on the owl during the breeding season.

e) Following treatments to 10% of the PACs, effects on the owl, prey species, and their habitats should be assessed. If such effects are non-negative, an additional sample of PACs may be treated. If negative effects are detected, these effects must be carefully evaluated. If they can be ameliorated by modifying treatments, those modifications should occur prior to treatment of additional PACs. If not, no additional treatments should be permitted.

6. Within the remaining PACs, light burning of ground fuels may be allowed within the 500 acres surrounding the 100-acre PAC centers (5b above), following careful review by biologists and fuels management specialists on a case-specific basis. Burns should be designed and implemented to meet the objectives noted in 5c above. Burns should be done only during the nonbreeding season (1 September-28 February).

7. Within PACS treated to reduce fire risk, either by the use of prescribed fire alone or in conjunction with mechanical removal of stems and ground fuels, pre-and post-treatment assessments (i.e., monitoring) of habitat conditions and owl occupancy must be done. Specific habitat characteristics that should be monitored include fuel levels,

canopy cover, snag basal area, volume of large logs (>30 cm [12 inch] midpoint diameter), and live tree basal area.

8. If a stand-replacing fire occurs within a PAC, timber salvage plans must be evaluated on a case-specific basis. In all cases, the PAC and a buffer extending 400 m from the PAC boundary must be surveyed for owls following the fire. A minimum of four visits, spaced at least one week apart, must be conducted before non-occupancy can be inferred. If the PAC is still occupied by owls or if owls are nearby (i.e., within 400 m of the PAC boundary), then the extent and severity of the fire should be assessed and reconfiguration of the PAC boundaries might be considered through section 7 consultation. If no owls are detected, then section 7 consultation should be used to evaluate the proposed salvage plans. If informal consultation cannot resolve the issue within 30 days, the appropriate RU working team should be brought into the negotiations.

Salvage logging within PACs should be the exception rather than the rule. The Recovery Team advocates the general philosophy of Beschta et al. (1995) for the use of salvage logging. In particular: (1) no management activities should be undertaken that do not protect soil integrity; (2) actions should not be done that impede natural recovery of disturbed systems; and (3) salvage activities should maintain and enhance native species and natural recovery processes.

> Further, any salvage should leave residual snags and logs at levels and size distributions that emulate those following presettlement, stand-replacing fires. Scientific information applicable to local conditions should be the basis for determining those levels.

Rationale. – The primary objective to be achieved by these guidelines is to protect the best available habitat for the Mexican spotted owl, while maintaining sufficient flexibility for land managers to abate high fire risks and to improve habitat conditions for the owl and its prey. We assume that the best available owl habitat is that which is currently occupied by owls, or that occupied by owls in the recent past (since 1989). The median size of the adaptive kernel contour enclosing 75% of the foraging locations for 14 pairs of radio-marked owls was 241 ha (595 ac). Therefore, a 243 ha (600 ac) PAC should provide a reasonable amount of protected habitat and should provide for the nest site, several roost sites, and the most proximal and highly used foraging areas. We assume that existing management guidelines and those discussed below for areas outside of PACs will ensure the existence of additional habitat appropriate for foraging.

The intent of these guidelines is not to preserve these PACs forever, but rather to protect them until it can be demonstrated that we can create replacement habitat through active management. We describe below in the section covering restricted areas the

approach for managing to create replacement habitat. Once land managers demonstrate that they can create replacement habitat, and when monitoring indicates that populations and habitats are stable or increasing, PACs could be abolished in conjunction with delisting the owl.

The Team recognizes that protection status carries some risk with respect to probabilities of catastrophic fire. The reason for the proposed management within PACs is to encourage a proactive approach to reduce fuel risks and simultaneously enhance prey habitat. If these objectives are achieved, existing owl habitat will be maintained and in some cases enhanced, while identified risks of catastrophic fire will be lessened.

Salvage logging in PACs should be allowed only if sound ecological justification is provided and if the proposed actions meet the intent of this Recovery Plan, specifically to protect existing habitat and accelerate the development of replacement habitat. Fires within PACs are not necessarily bad. In many cases, patchy fires will result in habitat heterogeneity and may benefit the owl and its prey. In such cases, adjustments to PAC boundaries are probably unnecessary and salvage should not be done. Salvage should be considered in PACs only when the fire is extensive in size and results in the mortality of a substantial proportion of trees.

Steep Slopes (outside of PACs)

Guidelines. – Within mixed-conifer and pine-oak types, allow no harvest of trees >22.4 cm (9 inches) on any slopes >40% where timber harvest has not occurred in the past 20 years. (Mixed-conifer and pine-oak types found on steep slopes that have been treated within the past 20 years are managed under restricted area guidelines below). These guidelines also apply to the bottoms of steep canyons. Thinning of trees <22.4 cm (9 inches) dbh, treatment of fuels, and fire are allowed, as discussed in 5c above. No seasonal restrictions apply, however. Prescribed natural fire is also permitted as is the creation of fire breaks on a case-specific basis.

On steep slopes treated to reduce fire risk, either by the use of prescribed fire alone or in conjunction with removal of stems and ground fuels, pre- and post-treatment monitoring of habitat conditions should be done. Specific habitat characteristics to be measured include fuel levels, snag basal area, volume of large logs (>30 cm midpoint diameter), and live tree basal area.

Rationale. – The objective of prohibiting timber harvest but allowing treatment of fuels and burning is to retain additional habitat with existing conditions similar to owl nesting/roosting habitat while reducing fire risks. These conditions appear to be found commonly in mature/old-growth stands, and such stands are now found most commonly on steep slopes because past management practices have largely

occurred on slopes <40%. We have restricted these guidelines only to the mixed-conifer and pine-oak types because existing information indicates that the owl favors these types for nesting and roosting (Ganey and Dick 1995).

These guidelines depart somewhat from recent management for steep slopes on southwestern FS lands. R. Fletcher (FS Southwestern Region, Albuquerque, NM, comment submitted on draft Recovery Plan) noted that only about 1,215 ha (3,000 acres) of steep slopes have been treated since 1987. Our guidelines emphasize that greater acreage should be treated through thinning and fire if threats of catastrophic fire are to be decreased on steep slopes. We have excepted steep slopes that been harvested in the recent past because many of these areas may not currently exhibit the forest structure spotted owls use for nesting or roosting. Guidelines for restricted areas apply to these lands.

Reserved Lands

Guidelines. – Encourage the use of prescribed natural fire where appropriate in Wilderness, Research Natural Areas, and other reserved lands.

Rationale. – Prescribed natural fire may be beneficial to owl habitat in several ways. First, it can aid in reducing fuel loads and risk of catastrophic wildfire resulting in loss of habitat over large areas. Second, it can create a diverse landscape with considerable horizontal heterogeneity. This seems to be relatively

characteristic of many areas occupied by spotted owls and also provides for a diverse prey base. Third, it can create conditions that maintain shade-intolerant species such as ponderosa pine or Gambel oak in the landscape. Prescribed fires should be used carefully in spotted owl habitat, however; and the results should be monitored to evaluate the effects on habitat components suspected to be important to the spotted owl and its prey, such as large snags and logs.

Restricted Areas

Not all lands can or should receive equal protection. We provided guidelines above to protect all occupied nesting and roosting habitat, as well as unoccupied steep slopes and reserved lands. Potential exists, however, for the owl to use other, unoccupied areas. Thus, we provide additional guidelines to maintain and develop potential nesting and roosting habitat now and into the future. The guidelines that we present are stratified by broad vegetative cover types: mixed-conifer forest, pine-oak forest, and riparian areas. Definitions for pine-oak and mixed-conifer forests as applicable to these recovery measures are given in II.C.

For the most part, these guidelines apply to planning areas. Planning areas can be diversity units, sale planning areas, or ecological areas, all places where management activities are considered and evaluated. The intent is to spread activities over the landscape rather than concentrating them in

particular areas. Management within restricted mixed-conifer and pine-oak forests is derived from concepts of ecosystem management. Ecosystem management, however, requires ecological assessments at hierarchies of spatial scales (Kaufmann et al. 1994:6). Thus, although management is applied to planning areas, it is crucial that the impacts are assessed at larger spatial scales (e.g., landscape, subregional, and regional scales).

The underlying objective of the following guidelines is to manage the landscape to maintain and create replacement owl habitat where appropriate, while providing a diversity of stand conditions and stand sizes across the landscape. As noted previously, we assume that the primary limiting factor for Mexican spotted owls is the amount of nesting habitat. A logical conclusion from this premise is that the landscape should be managed to sustain owl nesting habitat well distributed spatially. Because various natural processes lead to the development, maturation, and senescence of such stands through time, management should allocate stands in such a way as to mimic the natural landscape. We also assume that providing a continuous supply of nesting and roosting habitat requires that remaining stands be in various stages of ecological succession. The landscape mosaic resulting from such an allocation should ensure adequate nesting, roosting, and foraging habitat for the owl, and habitats for its variety of prey.

* * *

Overriding Guidelines. – Management activities that influence the owl and its habitat should be conducted according to the following overriding guidelines:

1. Manage mixed-conifer and pine-oak forest types to provide continuous replacement nest habitat over space and time. Treatment of a particular stand depends on its capability to attain the desired stand conditions. Target stand structure would be the described conditions for nesting and roosting habitat (Table III.B.1) but only the portion of the landscape that can be sustained through time should be in that condition.

2. Incorporate natural variation, such as irregular tree spacing and various stand/patch sizes, into management prescriptions and attempt to mimic natural disturbance patterns.

3. Maintain all species of native vegetation in the landscape, including early seral species. To allow for variation in existing stand structures and provide species diversity, both uneven-aged and even-aged systems may be used as appropriate.

4. Allow natural canopy gap processes to occur, thus producing horizontal variation in stand structure.

Specific Guidelines – The following guidelines are intended to minimize threats to the Mexican spotted

owl, retain and enhance important but difficult-to-replace habitat elements, and provide management flexibility.

1. Emphasis should be placed on uneven-aged management systems. Existing stand conditions will determine which silvicultural system is appropriate.

2. Extend rotation ages for even-aged stands to >200 years. Silvicultural prescriptions should explicitly state when vegetative manipulation will cease until rotation age is reached. This age may depend on site quality, but ceasing activity at 140 years and allowing 60 years for unaltered stand maturation and senescence seems reasonable.

3. Within pine-oak types, emphasis should be placed on management that retains existing large oaks and promotes the growth of additional large oaks.

4. Retain all trees >61 cm [24 in] dbh.

5. Retain hardwoods, large down logs, large trees, and snags.

6. Management priority should be placed on reducing identified risks to spotted owl habitat. The primary existing threat is catastrophic wildfire. Thus, we strongly encourage the use of prescribed and prescribed natural fire to reduce hazardous fuel accumulations. Thinning from below may be desirable or necessary before burning to reduce

ladder fuels and the risk of crown fire. Such thinning must emphasize irregular tree spacing.

7. No stand that meets threshold conditions can be treated in such a way as to lower that stand below those conditions until ecosystem assessments can document that a surplus of these stands exist at larger landscape levels (e.g., no less than the size of a FS District). This does not preclude use of treatments to reduce fire risks or lessen insect or disease problems, nor does it preclude management to meet other ecosystem objectives as long as stand-level conditions remain at or above the threshold values given in Table III.B.1.

Rationale. – The collective goal of these general and specific guidelines is to provide spotted owl habitat that is well distributed over space and time. To accomplish this goal requires maintaining or creating stand structures typical of nesting and roosting habitats and sustaining them in sufficient amounts and distribution to support a healthy population of Mexican spotted owls. A few guidelines merit further comment.

Retaining large trees is desirable because they are impossible to replace quickly and because they are common features of nesting and roosting habitats for the owl. Fire, viewed as a natural formative process rather than as a destructive anthropogenic process, can be used advantageously to maintain or improve spotted owl habitat.

The guidelines presented above should not be misconstrued as onetime management events. For example, large trees and snags are required by the spotted owl and will continue to be needed by the owl in the future. Further, the approach outlined above provides a foundation for the development of a long-term management strategy. Once the owl is delisted, we expect that this general template can be evaluated, fine-tuned, and possibly applied to PACs and steep slopes.

Riparian Communities

Guidelines. – The goals of these guidelines are to maintain healthy riparian ecosystems where they exist and initiate restoration measures to return degraded areas to healthy conditions.

1. Maintain riparian broad-leaved forests in a healthy condition where they occur, especially in canyon-bottom situations. Where such forests are not regenerating adequately, active management may be necessary. Possible actions to restore these forests may include reducing grazing pressure, establishing riparian exclosures to manage forage use better, and shifting to winter grazing seasons.

2. Restore lowland riparian areas. Spotted owls once nested in riparian gallery forests. Conceivably, restored riparian forests could contribute additional nesting habitat in the future and could also create a landscape that

is more effectively connected for dispersing owls.

3. Emphasize a mix of size and age classes of trees. The mix should include large mature trees, vertical diversity, and other structural and floristic characteristics that typify natural riparian conditions.

Rationale. – We assume that riparian forests provide important habitat for spotted owls. Many riparian systems within the range of the Mexican spotted owl are extremely degraded as the result of past management practices. Because many of these systems are degraded and little documentation of recent owl use exits, we have little empirical information upon which to provide specific guidelines. Thus, our underlying premise is that if riparian systems are restored to more natural conditions, the need of the owl (and numerous other species) will be satisfied. This is particularly true in canyon-bottom situations at middle and lower elevations where little other typical nesting or roosting habitat may be available. We know that canyon bottoms are used extensively by the owl, this it is important to preserve and increase the quality of such habitat. We anticipate that PACs will include some of the best of this type of habitat that still exists, but increasing the quantity and distribution of healthy riparian habitats provides the potential for increasing spotted owl habitat. Furthermore, maintenance of existing healthy riparian systems and restoration of those that are degraded

will benefit numerous riparian-dependant flora and fauna, and ecosystem health across the landscape.

Other Forest and Woodland Types

We propose no specific guidelines for several forest and woodland community types where they occur outside PACs. These include ponderosa pine, spruce-fir, pinyon-juniper, and aspen as defined in II.C. We emphasize, however, that the lack of specific management guidelines within this plan does not imply that we regard these types as unimportant to the Mexican spotted owl.

The Team's rationale for these recommendations is based on extant information on the natural history of the Mexican spotted owl as summarized in Part II.A and detailed in Volume II. These forests and woodlands are not typically used for nesting and roosting. However, they may provide habitat for foraging and possibly for both dispersing and wintering spotted owls. Our grasp of the owl's natural history regarding these behaviors is incomplete, so we do not fully understand the structural features the owl requires for pursuing these activities in these forest and woodland types. Furthermore, some of the best foraging habitat should be protected in PACs. All of these circumstances allow us to be less restrictive in these community types without harming the owl or compromising its primary habitat.

With the exception of the acreage of these types contained within PACs, we assume that the remaining lands are used primarily for foraging, wintering, migration, and dispersal. Thus, we contend that existing and planned management for these types will maintain or improve habitat for these needs of the owl. This contention is based largely on the assumption that existing old-growth areas will be maintained across the landscape, silvicultural practices will favor selection over regeneration cuts, and management will be guided by ecosystem approaches that strive to provide sustainable conditions across the landscape that fall within the natural range of variation.

Guidelines developed for protected and restricted areas may have useful applications when judiciously administered in these other Forest and woodland types. Such guidelines include managing for landscape diversity, mimicking natural disturbance patterns, incorporating natural variation in stand conditions, retaining special features such as snags and large trees, and utilizing fires as appropriate. We also emphasize the need for proactive fuels management where appropriate. Decreasing fire risks within these types, particularly ponderosa pine forests, will also decrease fire risks to adjoining protected and restricted areas by minimizing the probability of large landscape-level crown fires that could impinge upon occupied or potential nesting habitat.

* * *

Environmental Assessment
for
Designation of Critical Habitat
for the
Mexican Spotted Owl

U.S. Department of the Interior
Fish and Wildlife Service
Region 2

[LOGO]

18 August 2004

1.0 PURPOSE OF AND NEED FOR ACTION

The USDI Fish and Wildlife Service (Service) has prepared this Environmental Assessment (EA) to analyze potential effects to natural resources, social conditions, and economic conditions that may result from designation of critical habitat for the Mexican spotted owl (*Strix occidentalis lucida*), a species listed as threatened under the Endangered Species Act of 1973 (ESA), as amended. This EA will be used by the Service to decide whether or not critical habitat will be designated as proposed, if the proposed action requires refinement, or if further analyses are needed through preparation of an environmental impact statement. If the proposed action is selected as described or with minimal changes and no further environmental analyses are needed, a Finding of No Significant Impact will be prepared.

This EA has been prepared pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) as implemented by the Council on

Environmental Quality regulations (40 CFR 1500, *et seq.*) and Department of the Interior NEPA procedures.

1.1 Introduction

The final rule to list the Mexican spotted owl as threatened under the ESA was published on 16 March 1993 (58 FR 14248). The primary reason for listing was modification of habitat caused by timber harvest programs that produce and maintain even-aged forest stand conditions, which are unsuitable for Mexican spotted owl (58 FR 14248: 14266). At the time of listing, it was estimated that about 23½ percent of habitat suitable for Mexican spotted owl in New Mexico and Arizona national forests had been lost (58 FR 14248: 14267). Forest plans in place at the time of listing indicated that 44 percent of remaining suitable habitat in Arizona and New Mexico national forests would be lost during the planning period (58 FR 14248: 14267).

Most of the Mexican spotted owls known at the time of listing were found on national forests (91 percent), and most of those occurred in national forests in New Mexico and Arizona (58 FR 14248: 45252). The remainder of known Mexican spotted owls occurred on Indian lands (four percent), national parks (four percent), and lands managed by the Bureau of Land Management (one percent). In 1990, it was estimated that 69 percent of suitable habitat for Mexican spotted owls was on national forests, 13 percent was on

Indian lands, 10 percent was on Bureau of Land Management lands, five percent was on national parks, and three percent was on State of New Mexico lands. Less than one percent of suitable habitat for Mexican spotted owls (*ca.* 5,000 acres) was on privately-owned lands (58 FR 14248: 14252).

In the rule to list the Mexican spotted owl as threatened, the Service concluded that designation of critical habitat for Mexican spotted owl would "*provide benefits to the species greater than those provided by listing alone*" and that "*the designation of critical habitat will facilitate management and recovery planning by the Forest Service and other agencies in a way that could not be accomplished through listing*" alone (58 FR 14248: 14270). Pursuant to agency regulations (50 CFR 424.12[a][2]), the Service indicated that a rule to designate critical habitat would be published later because sufficient information to delineate critical habitat was not yet available.

A final rule designating critical habitat for Mexican spotted owl was published on 6 June 1995 (*60 FR 29914*). Critical habitat designated in the 1995 rule was set aside by a New Mexico federal court ruling in 1997 (*Coalition of Arizona – New Mexico Counties for Stable Economic Growth v. U.S. Fish and Wildlife Service,* No. 95-1285-M Civil, 1 April 1997), which affirmed an earlier ruling that analysis of the effects of critical habitat designation pursuant to NEPA was required (*Catron County Board of Commissioners v. United States Fish and Wildlife Service,* 75 F.3d 1429, 1439 [10th Cir. 1996]). These court rulings prompted

the Service to withdraw critical habitat designation for Mexican spotted owl (63 FR 14378).

In March 2000, a New Mexico federal court ruling ordered the Service to publish a final designation of critical habitat for Mexican spotted owl by 15 January 2001 (*Southwest Center for Biological Diversity and Silver v. Babbitt and Clark,* CIV 99-519 LFG/LCS-ACE, 13 March 2000). Critical habitat was again proposed and a final rule designating critical habitat for Mexican spotted owl was published on 1 February 2001 (66 FR 8530). In 2003, a federal court in Arizona ruled (*Center for Biological Diversity v. Norton, Civ.* No. 01-409 TUC DCB, 13 January 2003) that the 2001 critical habitat designation violated the requirements of the ESA and the Administrative Procedures Act (5 U.S.C. 551 *et seq.*). Although critical habitat as designated in the 2001 rule was allowed to stand in the interim, the Service was ordered to repropose critical habitat by 13 April 2004 and publish a final rule on critical habitat by 20 August 2004. On 18 November 2003, the Service published a notice in the *Federal Register* reopening the public comment period on the July 2000 proposed rule to designate critical habitat for Mexican spotted owl (68 FR 65020). This EA analyzes alternatives for designation of critical habitat for Mexican spotted owl.

* * *

1.4.2 Mexican Spotted Owl

1.4.2.1 Description Mexican spotted owl is one of three subspecies of spotted owl occurring in the United

States. It is distinguished from the other two subspecies (northern spotted owl, *S. o. caurina* and California spotted owl, *S. o. occidentalis*) by geographic distribution, plumage, and genetics (Barrowclough and Gutierrez, 1990; Barrowclough *et al.*, 1999). Mexican spotted owl is mottled in appearance with irregular white and brown spots on its abdomen, back, and head (Figure 2). Several thin white bands mark its brown tail. Unlike most other owls, all spotted owls have dark eyes. Spots on the body of Mexican spotted owl are larger and more numerous than in the other two subspecies, giving it a lighter appearance (Service, 1995a).

1.4.2.2 Distribution Mexican spotted owl has the largest geographic range of the three subspecies. Its range extends north from Aguascalientes, Mexico, through the mountains of Arizona, New Mexico, and western Texas, to the canyons of Utah and Colorado, and the Front Range of central Colorado. Much remains unknown about the distribution of the subspecies in Mexico, where much of the its [sic] range has not been surveyed.

Mexican spotted owl occupies a fragmented distribution throughout its United States range, corresponding to the availability of forested mountains and canyons, and in some cases, rocky canyon lands (Gutiérrez *et al.*, 1995; Service, 1995a; Tarango *et al.*, 1997; Young *et al.*, 1997; Sureda and Morrison, 1998; Peery *et al.*, 1999; Sorrentino and Ward, 2003). Although there are no estimates of the species' historical population size, its historical range and present

distribution are thought to be similar (58 FR 14248: 14248).

1.4.2.3 Abundance A reliable estimate of the number of Mexican spotted owls found range-wide is not currently available. Using information gathered by Region 3 of the Forest Service, Fletcher (1990) calculated that 2,074 Mexican spotted owls existed in Arizona and New Mexico in 1990. Based on more up-to-date information, this estimate was revised to 2,160 Mexican spotted owls in the U.S. (Service, 1991). However, these numbers are not considered reliable estimates of current population size for a variety of statistical reasons, and a pilot study (Ganey *et al.*, 2000) conducted in 1999 estimated the number of Mexican spotted owls for the Upper Gila Mountains Recovery Unit, exclusive of tribal lands, as 2,950 (95 percent confidence interval = 717 to 5,183). The Upper Gila Mountains Recovery Unit contains over half of the known Mexican spotted owl sites in the U.S.

1.4.2.4 Habitat Mexican spotted owls nest, roost, forage, and disperse in a diverse array of biotic communities. Nesting habitat is typically in areas with complex forest structure or rocky canyons, and contains uneven-aged, multi-storied mature or old-growth stands that have high canopy closure (Ganey and Balda, 1989a; Service, 1991). In the northern portion of the range (Utah and Colorado), most nests are in caves or on cliff ledges in steep-walled canyons. Elsewhere, the majority of nests appear to be in Douglas-fir (*Pseudotsuga menziesii*) trees (Fletcher

and Hollis, 1994; Seamans and Gutiérrez, 1995). A wide variety of tree species is used for roosting; however, Douglas-fir is the most commonly used species in mixed-conifer forests (Ganey, 1988; Fletcher and Hollis, 1994; Young *et al.,* 1998). Mexican spotted owls generally use a wider variety of forest conditions for foraging than they use for nesting and roosting.

* * *

Some Mexican spotted owls are year-round residents within an area, some remain in the same general area but show shifts in habitat use patterns, and some migrate considerable distances (12 to 31 miles) during the winter, generally migrating to more open habitat at lower elevations (Ganey and Balda, 1989*b*; Willey, 1993; Ganey *et al.,* 1998). The home-range size of Mexican spotted owls appears to vary considerably among habitats and geographic areas (Service, 1995*a*), ranging in size from 647 to 3,688 acres for individuals birds, and 945 to 3,846 acres for pairs (Ganey and Balda, 1989*b*; Ganey *et al.,* 1999; Ganey *et al.,* 2000). Little is known about habitat use by juveniles dispersing soon after fledgling. Ganey and others (1998) found dispersing juveniles in a variety of habitats ranging from high-elevation forests to piñon-juniper woodlands and riparian areas surrounded by desert grasslands.

* * *

3.2 Conservation of Mexican Spotted Owl

3.2.1 Existing Conditions

The requirement for federal agencies to consult on effects of proposed actions to Mexican spotted owl has been in place since the species was listed in 1993. Federal agencies are also required to consult on effects to critical habitat within currently designated areas. Critical habitat was proposed or designated at various times since the species was listed up to the present time.

* * *

Actions that occur within designated critical habitat boundaries must also be examined for effects on primary constituent elements. The Service's policy states that "*actions in critical habitat that affect primary constituent elements (as described in the final rule designating critical habitat) may affect critical habitat and, therefore, must be consulted upon.*"

Federal agencies make the initial determination of whether or not their action will affect Mexican spotted owl or designated critical habitat. If the action agency determines that there will be no effect, they are not required to consult with the Service. Based on listing of the species alone, Federal agencies consult on effects to protected or restricted areas and other forest and woodland types within one mile of a PAC regardless of occupancy by nesting Mexican spotted owls. These consultations are directed at avoiding or minimizing impacts to important habitat variables such as habitat patch size, stand structure, tree size

and density, large woody debris, and understory vegetation (Service, 1995*a*). These habitat variables are consistent with the proposed primary constituent elements of critical habitat (*cf.* section 1.4.1.3).

Forests in Region 3 (Arizona and New Mexico) consult under the jeopardy standard with the Service on projects that may affect suitable habitat regardless of occupancy by nesting Mexican spotted owls (Keith Meñasco, U.S. Forest Service, pers. comm., 20 January 2004). This is also the case on Forest Service lands in Colorado (Leslie Ellwood, Service, pers. comm., 22 January 2004). Suitable habitat, as used here, encompasses both protected and restricted areas, as defined by the recovery plan, and other forest and woodland types within one mile of a PAC (Service, 1995*a*). Review of past consultations indicate that the Forest Service has been consistent in adopting the Service's policy, as evidenced by the number of consultations involving actions in suitable habitat. For example, of the 24 Mexican spotted owl consultations on the Lincoln National Forest from 1996 to 2000, 19 (79 percent) dealt with impacts to suitable habitat outside of any PAC.

* * *

Most known Mexican spotted owl sites and suitable habitat for the species occurs on lands administered by the U.S. Forest Service (Service, 1995*a*: 21), mostly within the Southwestern Region (Service, 1995*a*: 23-24). Recent estimates indicate that there is at least 6,052,842 acres of habitat suitable for Mexican

spotted owl on forests in the Southwestern Region (Table 5; U.S. Forest Service, 2004). About 11 percent of the suitable habitat consists of Mexican spotted owl PACs. There are at least 987 PACs on forest lands in the Southwestern Region (Figure 5).

To date, 125 formal consultations have been initiated involving Mexican spotted owl (Shaula Hedwall, Service, unpubl. data). In other words, there have been 125 projects that have resulted in an adverse effect to the species. Cumulative anticipated incidental "take" of Mexican spotted owls from these projects was 348 PACs (Table 6).

Table 5. Estimated amount of habitat suitable for Mexican spotted owls, Forest Service Region 3. PACs includes only those known and mapped. Source: U.S. Forest Service, 2004.

FOREST	PACs		Suitable Habitat Outside of PACs*	Total
	PACs	Acres	Acres	Acres
Apache-Sitgreaves	138	88,530	786,007	874,537
Carson	2	1,454	355,023	356,477
Cibola	53	34,788	618,325	853,113
Coconino	184	124,799	603,065	727,864
Coronado	107	75,388	163,219	238,607
Gila	225	142,673	1,506,869	1,649,542
Kaibab	6	3,691	160,244	163,935
Lincoln	137	84,868	181,730	266,598
Prescott	15	9,128	144,211	153,339
Santa Fe	48	31,572	395,215	426,787
Tonto	72	46,505	495,538	542,043
Total	**987**	**643,396**	**5,409,446**	**6,052,842**

* Suitable habitat acreage outside PACs includes all mixed-conifer and mixed-conifer transition stands and all pine or pine-oak stands with one percent or greater canopy cover in Gambel oak (except for the Lincoln, Carson, and Santa Fe). Protected area habitat is likely overestimated, while restricted area habitat is underestimated (Forest Service, 2004).

Over three-quarters of the formal consultations were with the Forest Service (77 percent). The National Park Service and the military each comprised six percent of the formal consultations. Five percent of the formal consultations were with the Bureau of Indian Affairs, and the remaining formal consultations were with the Federal Highway Administration, Department of Energy, Environmental Protection Agency, or Service (Table 6). Forest Service projects comprised 86 percent of the total anticipated incidental "take" of Mexican spotted owls, measured as the number of Protected Activity Centers, or PACs, which are known nest sites. No other single agency had more than 10 percent of the total anticipated incidental "take" (Table 6).

Table 6. Number of formal consultations and anticipated incidental "take" of Mexican spotted owl to date.

AGENCY	NO. OF FORMAL CONSULT.		ANTICIPATED "TAKE" (No. of PACs)	
U.S. Forest Service	96	(77%)	294	(86%)
National Park Service	8	(6%)	5	(1%)
Military*	7	(6%)	20	(6%)
Bureau of Indian Affairs	6	(5%)	25	(7%)
Federal Highway Administration	4	(3%)	4	(1%)
Other	4	(3%)	0	(0%)
Total	**125**		**348**	

* Includes projects proposed by the U.S. Air Force, Army, or Navy.

The data in tables 5 and 6 indicate that incidental "take" was anticipated in 30 percent of the PACs known to occur on Forest Service lands (i.e. 294 PACs taken, 987 PACs known).

Designated critical habitat has been in effect during various periods since 1995. Only one of the formal consultations contained an opinion that the proposed action would destroy or adversely modify designated critical habitat. This opinion was issued in consultation on the U.S. Forest Service, Region 3 forest plans prior to their amendment to include recovery plan guidelines for Mexican spotted owl (Service, 1996*b*).

* * *

3.5 Livestock Grazing

3.5.1 Existing Conditions

Livestock grazing in habitat of Mexican spotted owl occurs primarily on Forest Service and tribal lands. Currently, there are 1,417 active domestic livestock grazing allotments on national forests in the Southwestern Region (U.S. Forest Service, 2004). Fifty percent of permitted livestock grazing is for year-long use, while 43 percent is for summer use, and seven percent is for winter use (U.S. Forest Service, 2004).

* * *

Fifty-three informal and 13 formal consultations have been conducted on livestock grazing actions involving effects to Mexican spotted owl. All of the formal consultations were with the Forest Service on grazing management plans. Section 7 consultations on effects

of grazing actions to Mexican spotted owl consider impacts to both PACs and suitable habitat outside of PACs.

* * *

3.5.2 Effects on Livestock Grazing

3.5.2.1 No Action Alternative The effect of section 7 consultation on grazing actions would not change, compared to the existing condition, with the No Action Alternative. Section 7 consultations, as described above, would continue to assess effects to Mexican spotted owl due to impacts to suitable habitat that is outside of any PAC. Management measures implemented to improve habitat for Mexican spotted owl may result in long-term increases in forage production, particularly in ponderosa pine and piñon-juniper woodland habitats (Forest Service, 1995: 19). This would occur with restoration of forest stands to more natural vegetation structure and ecological function.

The economic analysis assumed that continuing conservation activities for Mexican spotted owl, irrespective of critical habitat designation, would result in a 10 percent to 50 percent reduction in AUMs in protected habitat areas (i.e. all occupied nest or roost areas, all areas with slope greater than 40 percent where timber harvest has not occurred in the past 20 years, and all legally administered reserved lands such as Wilderness Areas or Research Natural Areas). However, the analysis pointed out that the AUM reduction assumption was overstated

because "*multiple factors affect reductions in AUMs other than MSO*" conservation and that "*reductions* [in AUMs] *are likely to result from a combination of factors in addition to MSO conservation, such as forage availability, competition with other ungulates, and competing management priorities*" (Industrial Economics, Inc., 2004: ES-8 and Chapter 4). Furthermore, habitat of Mexican spotted owl (*i.e.* steep slopes in densely forested areas) is typically poorly suited for livestock grazing. However, the economic analysis assumed that AUMs were distributed evenly, regardless of habitat, which contributes to the overstatement of impacts to grazing from ongoing Mexican spotted owl conservation activities (Industrial Economics, Inc., 2004: ES-21).

3.5.2.2 Alternatives I, II, and III and Option A Designation of critical habitat would cause reinitiation of section 7 consultation for ongoing grazing management actions in designated areas. This effect would vary, with Alternative I most likely to cause the greatest number of consultation reinitiations and Alternative III causing the least. The consequences of critical habitat designation would be negligible, in terms of potential modifications to or restrictions of grazing actions. This is because impacts to suitable habitat (both within and outside of PACs) are currently being assessed in section 7 consultations on effects to the species (*i.e.* under the jeopardy standard). Livestock grazing levels may change in the project area, irrespective of critical habitat designation, for reasons such

as drought, market conditions, and other land management requirements.

The economic analysis concluded that future impacts to livestock grazing would be associated with ongoing conservation actions for Mexican spotted owl, irrespective of critical habitat designation. The only effect of critical habitat designation on livestock grazing would be "*some additional administrative costs related to addressing critical habitat in future consultation efforts.*" With designation of critical habitat, "*future impacts related to section 7 consultations and project modifications are expected to remain largely the same*" as under existing conditions (Industrial Economics, Inc., 2004: ES-6).

* * *